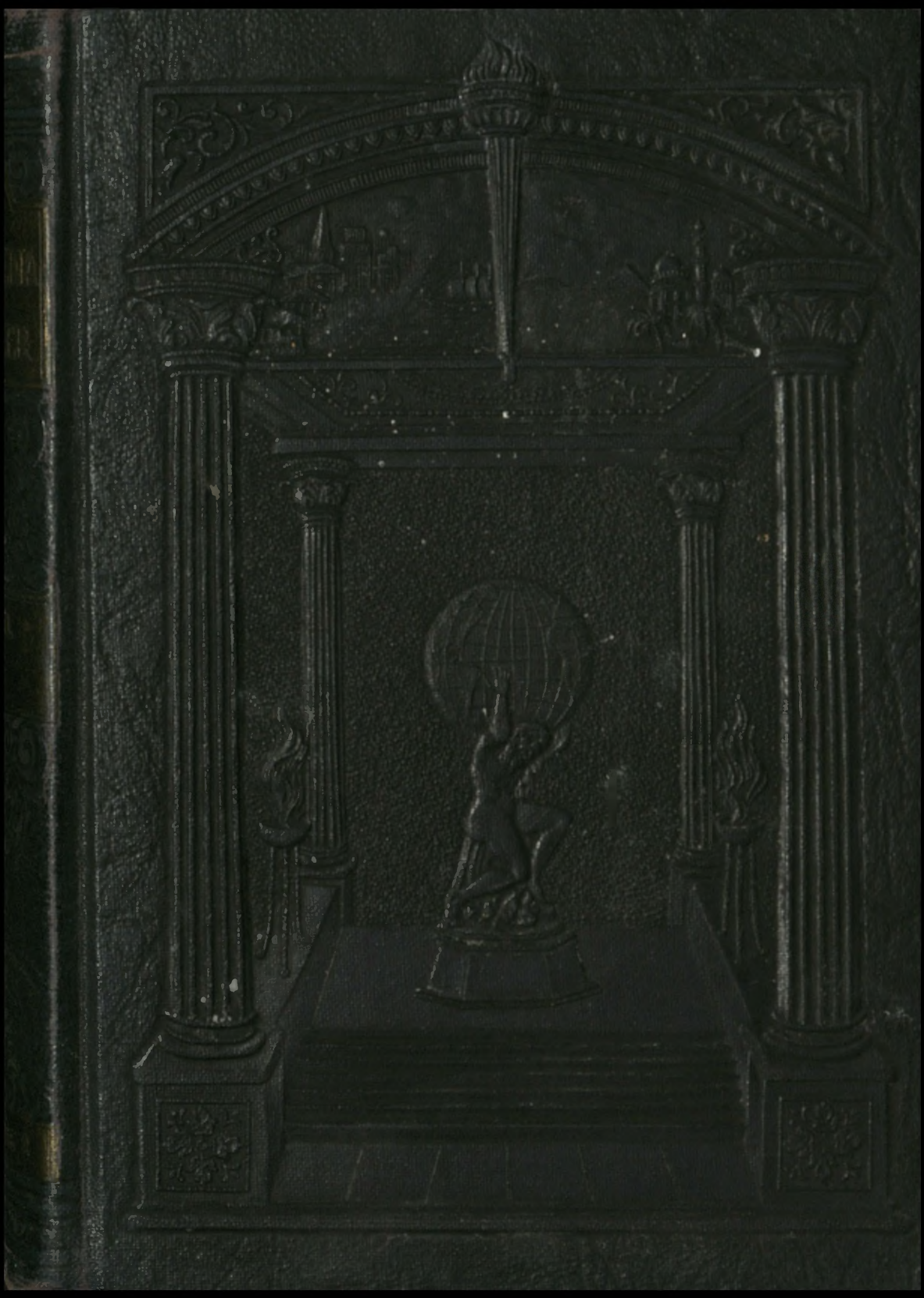
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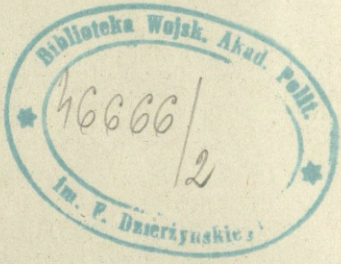
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1950 P. 519

with the New York "Tribune" from 1875 to 1881, when he joined the staff of the "Century Magazine;" and, in 1883, in conjunction with Robert Underwood Johnson, he began the editing of the celebrated "Century War Articles," which were afterward expanded into the notable "Battles and Leaders of the Civil War" (1887).

**Buell, Don Carlos,** an American military officer, born near Lowell, O., March 23, 1818. He was graduated at West Point in 1841, and served in the Mexican War. When the Civil War broke out he was adjutant-general of the regular army, and was made a Brigadier-General of Volunteers and attached to the Army of the Potomac. In November, 1861, he succeeded Gen. W. T. Sherman in command of the Department of the Ohio. He resigned from the volunteer service on May 23, 1864, and on June 1, following, also resigned his commission in the regular army. He died near Rockport, Ky., Nov. 19, 1898.

**Buenaventura,** a town on the Pacific coast of the Republic of Colombia. It has a hot, sickly climate, but is the port for the healthful and rich Cauca valley. Pop. 5,000.

**Buena Vista,** a village of Mexico, 7 miles S. of Saltillo, where Feb. 22-23, 1847, 5,000 U. S. troops, under Taylor, defeated 20,000 Mexicans under Santa Ana. Pop. (Est.) 4,500.

**Buen-Ayre,** French BONAIRE, a West Indian island, 60 miles from the coast of Venezuela, and 30 E. of Curacao, like which it belongs to the Dutch. It produces timber, cattle, cochineal, and salt. Area, 95 square miles; pop. (Est.) 7,000.

**Buendia, Juan,** a Peruvian general, born in Lima in 1814. He was put in command of the Army of the South in the Chilian War in 1879, and attacked 10,000 Chilians on the heights of San Francisco (Nov. 8), where he was defeated with terrible loss. He was court-martialed, but freed from blame and afterward served in the defense of Lima.

**Buenos Aires,** a city of South America, capital of the Argentine Republic, on the S. W. side of the La Plata, 150 miles from its mouth. It was founded in 1535 by Don Pedro de Mandoza, and is built with great regularity, the streets uniformly crossing each other at right angles. It contains the palace of the President, the House of Representatives, a Town Hall, a number of hospitals and asylums, a cathedral, several monasteries, nunneries, and Catholic and Protestant churches; several theaters, a university and a custom house. The university, founded in 1821, is attended by about 800 students. There are also a medical school, normal and other schools, besides literary and scientific societies. Since 1889 the city has undergone notable changes in the way of local improvement. The most important is the creation of a new system of docks, involving the construction of five long wet docks and great basins. The basins have ample area for the largest ocean steamships, and along their walls are hydraulic elevators by which every hatchway of a vessel may be worked at once. Buenos Aires is one of the leading commercial centers of South America, its exports and imports together annually amounting to over $60,000,000. Chief exports are ox and horse hides, sheep and other skins, wool, tallow, horns, etc. There are six railways running from the city, and over 100 miles of tramway in the city and suburbs. About one-fourth of the inhabitants are whites; the rest are Indians, negroes and mixed breeds. Pop. (1922 Est.) 1,700,000. The province of Buenos Aires has an area of about 118,000 square miles, and presents nearly throughout level or slightly undulating plains (pampas), which afford pasture to vast numbers of cattle and wild horses. These constitute the chief wealth of the inhabitants. Pop. (1922 Est.) 1,920,000.

**Buffalo,** city and county-seat of Erie co., N. Y., second city in population and importance in New York. It is built at the E. end of Lake Erie, at the head of the Niagara river, 20 miles above the Falls. It is the W. terminus of the Erie canal, and has a navigable water front of 8 miles, with numerous piers, breakwaters, basins and canals, giving it one of the finest harbors on the lakes and making it a great commercial center. The city is connected by several steamship lines with the chief lake ports, and by ferries with Victoria and Fort Erie, on

the Canadian side. The International Bridge, costing $1,500,000, connects Buffalo with these towns. Area, 42 square miles; population (1920) 506,775; 1925 (Est.) 553,828.

Buffalo is situated on an elevated plain, 50 feet above the lake and 600 feet above sea level. From this plain the ground slopes gradually to the lake. It is bordered on three sides by water, the Niagara river, Lake Erie and Buffalo river. Buffalo river is navigable for 2 miles, and two canals pass between the river and the lake. The city is noted for its wide and beautiful streets, and the abundance of shrubbery and trees decorating them. The principal streets are Main, Niagara, Delaware, Broadway, and Linwood and Elmwood avenues, 120 feet wide, and all over 5 miles in length. Buffalo claims to be the cleanest and healthiest city in the United States and to possess a greater extent of asphalt paving than any other city of its size in the country.

Buffalo has a public park system consisting of several parks containing 741½ acres and connected by boulevards and approaches, affording a continuous drive of 15 miles, and containing an area, with the minor parks and places, of 276½ additional acres. The principal public buildings are the Federal Building, containing the Post-office and Custom-house, a large building of freestone; the State Arsenal; the Board of Trade Building; the Old and New Armories; Grosvenor Library; Normal School; two public high schools; Erie County and Buffalo Savings Banks; the Erie County Penitentiary; and the City and County Hall. Besides these, there is the Buffalo Library, in Lafayette Square, containing a circulating library of 77,000 volumes, and, in the same building, are the Buffalo Historical Society, the Buffalo Fine Arts Society and School of Arts, and the Society of National Sciences. Buffalo is one of the greatest horse markets in the United States. It is a great distributing center for lumber and fish, iron and coal and grain of all kinds. Its manufactures include foundry and machine shops, cars and shop construction, iron and steel products. One of its largest industries is meat packing. By virtue of its position it is one of the country's greatest ports. Buffalo is the terminus of the New York State Barge Canal and is also noted as a great railway center.

The site of Buffalo was first visited by the French, under La Salle, in 1679. In 1687 a settlement was made by Baron La Honton and Fort Suppose was erected. It was held by the British as Fort Erie during 1783–1784, and was incorporated as the village of Buffalo and soon afterward burned by the British, in 1813. It was rebuilt in 1815; but its progress was slow until the completion of the Erie canal in 1825. It became a city in 1832 and since then it has been very prosperous. A Pan-American Exposition was held here between May 1 and Nov. 2, 1901; President McKinley was fatally wounded while attending it on Sept. 6.

**Buffalo,** a name often applied to two distinct bovine genera or sub-genera — viz., the Asiatic buffalo with the Cape buffalo; and the American buffalo, better named bison. The genus or sub-genus bubalus has the usual bovine characteristics, and, whatever be its exact limits in strict zoological classification, remains, for practical purposes, a large, clumsy ox. The horns rise from the posterior side corners of the skull, are usually thickened out of proportion at the base, and irregularly ridged, though smooth toward the points; the forehead is short and arched; the covering of hair is comparatively sparse. The Asiatic buffalo is a very powerful animal, much more powerful than the ox, and capable of dragging or carrying a far heavier load. The female yields a much greater quantity of milk than a cow, and of excellent quality. It is from buffalo milk that the ghee or semi-fluid butter of India is made. The hide is greatly valued for its strength and durability, but the flesh is decidedly inferior to that of the ox. The Arnee is a very large variety of the common buffalo; a head has been known to measure 13 feet 6 inches along the horns. It occurs in the Indian islands and in Farther India in a wild state, but is also domesticated and used as a beast of burden. The Cape buffalo is generally regarded as a distinct species. The horns are very large; they spread horizontally over

the top of the head, and are then bent down laterally, and turned upward at the point. The head is carried, as by the common buffalo, with projecting muzzle and reclining horns, but the bases of the horns nearly meet on the forehead, where they are from 8 to 10 inches broad. The length of a full grown Cape buffalo is about 8 feet from the root of the horns to the tail, and the height is 5½ feet. This animal is regarded as more formidable than any other in South Africa. The buffalo is still found in large herds in the marshy wooded regions of Central and South Africa, but in Cape Colony, where it was once plentiful, it has now become comparatively rare. It grazes chiefly in the evening, and lies in woods and thickets during the day. It will readily act on the aggressive, and has never been domesticated. The flesh, though coarse, is palatable. The dwarf, wild cow of the island of Celebes is also related to the buffaloes. For the American buffalo, see BISON.

**Buffalo Berry,** a shrub of the oleaster family, a native of the United States and Canada, with lanceolate, silvery leaves and close clusters of bright red acid berries about the size of currants, which are made into preserves and used in various ways.

**Buffalo Grass,** a strong growing North American grass, so called from forming a large part of the food of the buffalo, and said to have excellent fattening properties; called also gama grass.

**Buffet,** anciently a little apartment, separated from the rest of the room, for the disposing of china, glass, etc. It is now a piece of furniture for the dining-room, called a sideboard, for the same purpose.

**Buffington, Adelbert Rinaldo,** an American military officer; born in Wheeling, Va., Nov. 22, 1837; was graduated at the United States Military Academy in 1861; entered the Ordnance Department; was promoted Colonel in 1889, and became Chief of Ordnance with the rank of Brigadier-General, April , 1899. He had command of the National Armory in 1881-1892; is the inventor of a magazine firearm, carriages for light and heavy guns, and parts of models of 1884 Springfield rifles; introduced gas forging furnaces and improved methods in the Springfield armory; and originated the niter and manganese method in use there for blueing iron and steel surfaces of small arms. Died, 1922.

**Buffon, George Louis Leclerc, Count de,** one of the most celebrated naturalists and authors of the 18th century; born in Montbard, Burgundy, Sept. 17, 1707. Buffon, in his earlier years, was animated only by an undefined love of learning and fame, but his appointment, as superintendent of the Royal Garden (now the Jardin des Plantes), in 1739, gave his mind a decided turn toward that science in which he immortalized himself. The most perfect part of his work is the "History of Quadrupeds"; the weakest, the "History of Minerals," in which his imperfect acquaintance with chemistry and his inclination to hypothesis have led him into many errors. After a long and painful illness, he died in Paris, April 16, 1788, at the age of 81 years, leaving an only son, who perished in the Revolution by the guillotine.

**Buford, John,** a cavalry leader in the Civil War, born in Kentucky 1826. He was graduated at West Point in 1848, saw service in the West, and in July 1862 was made Brigadier-General of volunteers and assigned to a cavalry brigade in the Army of Virginia. He took a leading part in all the campaigns of the army to the battle at Gettysburg, which he is said to have deliberately chosen for the great conflict. He retired on sick leave in November of 1863, and received the rank of Major-General on the day of his death, Dec. 16, 1863.

**Bug,** a common name applied to insects of the natural order Hemiptera. Most of these insects essentially resemble the bed-bug, except that they have wings. Some suck the blood of animals, and others subsist on vegetable juices. While a few are of commercial importance, like the cochineal and lac insects, most of them are harmful. Not a few species are beautiful, but many have the same unpleasant smell which emanates from the bed-bug. The unattractive form and manner of life of the bed-bug are

too well known to require description. The eggs, which are white, are deposited in the beginning of summer. They are glued to the crevices of bedsteads or furniture, or to the walls of rooms. Before houses existed, the bug probably lived under the bark of trees.

**Bugenhagen, Johann,** a German reformer, friend and helper of Luther in preparing his translation of the Bible, born in 1485. He fled from his Catholic superiors to Wittenberg in 1521, where he was made, in 1522, Professor of Theology. He effected the union of the Protestant free cities with the Saxons and introduced into Brunswick, Hamburg, Lubeck, Pomerania, Denmark, and many other places, the Lutheran service and church discipline. He died in 1558.

**Buggy,** in the United States, a light, one horse, four wheeled vehicle, with or without a hood or top.

**Bugle,** a treble instrument of brass or copper, differing from the trumpet in having a shorter and more conical tube, with a less expanded bell. It is played with a cupped mouthpiece. In the original form it is the signal horn for the infantry, as the trumpet is for the cavalry.

**Buhr Stone,** a variety of quartz containing many small, empty cells, which give it a peculiar roughness of surface. They are used principally as mill-stones. The best kinds are creamy white, with a granular and somewhat cellular texture, and are obtained in France. Numerous substitutes for the French buhr stone have been found in the United States, the most important being furnished by the buhr stone rock of the bituminous coal measures of Northwestern Pennsylvania and Eastern Ohio.

**Building; Fireproof, Iron and Concrete Construction.** Building combines the principles of masonry, carpentry, joining, plumbing and the methods of operation in all allied trades or arts, with a knowledge of the qualities, strength and resistance of materials, and the science of architecture. It comprehends the arrangement of a design for the greatest possible degree of convenience on a ground plan; the preparation and formation of foundations; of floors; the arrangement and construction of drains, sewers, and vent-shafts; the varieties of walling with wood, stone, or laying of bricks; the various methods of tying and bracing walls; the arrangement of gutters on roofs with overflow water pipes in the least inconvenient places; the location and formation of chimneys; the protection of walls from damp, of timber from moisture and stagnant air; of metals from corroding causes, etc., besides the multitude of details which attend the completion of any structure.

In modern times, attention has long been devoted to devising means and providing materials for building purposes that will withstand the dangers and destruction caused by fire. The production of incombustible materials, rather than the rendering of wood and other combustibles fireproof by chemical treatment, has been an important factor in the development of present-day building methods.

During the experimental stage in fireproof construction in the United States from 1854 to 1870, the substitution of iron for wood for all constructive purposes was thought an important advance until iron of all kinds proved unreliable when exposed to temperatures of 900 degrees Fahr. and over. The danger from the new style of building was greater than from the old. In many instances, buildings with cast-iron fronts collapsed completely during a fire, and the plan of *unprotected* iron construction was abandoned.

Between 1875 and 1879, however, the advantages of *protected iron construction* was recognized, and with the improvement of incombustible materials for building purposes, steel skeleton construction is now generally adopted for all new structures of any magnitude throughout the United States, and is extending to foreign countries.

In the use of concrete, a wooden mould of desired width, placed about the steel girders, receives under pressure the liquid stone which is left to harden. When the wooden shields are removed, a smooth wall is presented, which grows harder with the passage of time and withstands a greater pressure than granite or steel itself.

The building of a modern iron-frame skyscraper is chiefly a matter of as-

sembling the parts or "members." Little of the real work is done on the site of the building as in the old days of stone construction. The digging of the cellar and the sinking of caissons in order to lay a bed for the iron-work is the principal engineering work done on the spot. All departments work simultaneously — excavators, draughtsmen, rolling mills, iron-workers, masons, plumbers and finishers. How much weight each upright and floor will have to carry is figured out, and for the guidance of the rolling-mill man detail sketches are made of every beam, girder and upright to be used, with every dimension calculated to the sixteenth of an inch, and every rivet hole exactly indicated as to place and size. Every piece is numbered to correspond with the number on the builder's plan, the floors they are to occupy being indicated by letters. Thus M 114 signifies for M, the thirteenth floor, and 114, its position on that floor. By this plan the stone-work may often be seen built up on the higher stories, while the floors below show only the iron skeleton left open for various reasons, such as the late arrival of boilers, engines, etc. The ideal method in the assembling and putting together of the different parts of the modern building is to keep the stone masons, housesmiths and plumbers one floor behind the iron-workers, the carpenters one floor behind these, the plasterers one floor behind the carpenters, and so on till the top story is finished.

Modern buildings are erected according to the standard regulations for fireproof buildings suggested by the National Board of Fire Underwriters and incorporated in the Building Laws.

**Building and Loan Associations,** combinations of individuals, who agree to pay a fixed sum monthly, by which a fund is accumulated which is loaned to members, who desire to purchase or improve real estate. Their capital stock, which is prospective, is usualy divided into shares of a par value of $200 each. Each shareholder pays upon each share he holds a monthly subscription of $1, till such payments, with accrued profits, brings the value of the share to par. The number of shares each member may hold varies in different associations, the general rule being not less than two nor more than 25, the latter limitation being intended to prevent speculation. When money sufficient to declare a loan has accumulated in the treasury, a single share of $200 is put up at auction and knocked down to the member who bids the highest premium. He has the option, at the same premium, of taking as many shares as he may desire, within the limits fixed by the association. The age of the asociation depends on the size of these premiums; the larger the premium bid the more quickly the association terminates. Premiums vary with the age and location of the association, and also with the demand for money. There are two methods of treating these premiums, known as the gross and instalment plans. The gross plan treats the premium at once as profits earned, though the amount bid will not be paid in full for 10 or more years. The instalment plan declares as profits only such amount of the premium as is actually paid in during the year. So far as the final result is concerned, there is no difference between the two. Building and loan associations are formed on two plans, called terminal and serial. The terminal associations compel all members to begin payments on the same day. A new member joining after the beginning of the association is thus forced to pay arrearages. This is avoided in serial associations by allowing new members to join at stated intervals, usually six months or a year, without the payment of arrearages. The advantages of building and loan associations are: That each share, whether borrowed upon or not, has credited to it a pro rata amount of all profits declared. Loans are generally advanced to within 80 per cent. of the appraised value of the property. No large salaries are paid. All officers, appraisers, auditors, etc., are elected in open meeting. Members may withdraw at any time after the first year, obtaining a fair share of the profits. Loans are invariably secured by first mortgage. Only members may obtain loans. Mortgages may be paid off at any time. There are no speculative features, the association buys nothing, the borrowing

member making all contracts. On June 30, 1923, there were 10,009 building and loan associations in the United States, reporting a total membership of 6,864,144, total assets of $3,342,530,953, and an increase in a year of 1,000,000 in membership and $500,000,000 in assets.

**Bukowina,** ("beech land"), a Province in the extreme E. of the Kingdom of Roumania, surrounded by Galicia, Russia, Moldavia, and Hungary. Area, 4,033 square miles; pop. (1919) 800,000, of whom 42 per cent. were Ruthenians, 32 Moldavians, and 13 Jews, while 70 per cent. belonged to the Greek Church. It is traversed by offsets of the Carpathians, culminating at 6,077 feet; gives rise to many rivers flowing toward the Black Sea; and abounds in wood, along with considerable mineral riches.

Bukowina belonged originally to Turkey, was occupied by the Russians in 1769 and the Austrians in 1774, was ceded by Turkey to Austria in 1777, was incorporated with Galicia in 1786, but was separated from it in 1849. The province was the center of vast military operations for a long time after the outbreak of the great war. On Feb. 24, 1915, the Russians were defeated in a stubborn attack here; on June 23, 1916, they occupied a part of the territory.

**Bulacan,** a town in Luzon, Philippine Islands, about 22 miles N. W. of Manila, with which it is connected by railway; pop. about 10,000. The town is composed mainly of native huts, although there are factories in which silk matting is made. Sugar making is also an industry of importance. The place has strategic advantages, which caused it to become a theater of military operations after the Spanish-American War.

**Bulawayo,** the principal town and chief commercial center of Matabeleland, in Southern Rhodesia, South Africa, to which point the railroad from Cape Town was completed in 1897, a total distance of 1,360 miles. The place had a pop. (Est.) 5,000, several hotels, good business blocks and residences, and is rapidly growing in size and importance. Bulawayo a few years ago was the site of a native village of rude huts, in an inclosure of wattles, whose inhabitants were savages of the lowest type.

**Bulbul,** the Indian name of any bird belonging to a sub-family of thrushes.

**Bulfinch, Charles,** an American architect, born in Boston 1763; died 1844. He built the first playhouse erected in New England, the old Federal street theatre in Boston, and drew plans for the Massachusetts State house. His principal work was the rotunda, the west approaches, and the portico, in the Capitol at Washington.

**Bulgaria,** a former Turkish principality, created by the Treaty of Berlin (1878), declared her independence on Oct. 5, 1908, bounded on the N. by Rumania, on the W. by Servia and Greece, on the E. by the Black Sea, and on the S. by Turkey and the Ægean Sea; area, 39,840 square miles; pop. (1921) 4,909,700; capital, Sofia. The soil is excellent and the slopes of the mountains are richly wooded. The inhabitants, though not skilled in agriculture, are able to produce a considerable export in grain products beyond what they require for themselves. Wheat is the chief export. Fruit is raised in abundance, and vegetables for home use; roses, for the production of the attar, are raised in large quantities; 80,000 gallons of wine are made annually; silk worms are bred in some regions, and tobacco is raised. There is little mining, although the mountains are rich in minerals. Domestic industries are chiefly carpets, cloths, hosiery, and ribbons. The roads are very bad, and there is but a single line of railroad; about 500 miles, on the route between Vienna and Constantinople. All traffic is carried on by the rivers, and the export trade by the Black Sea. The population is about 74 per cent. Bulgarians, 19 per cent. Turks, the rest Spanish Jews, with a sprinkling of Greeks; 77 per cent. are of the faith of the Orthodox Greeks Church; only 2½ per cent. Moslems. The government is Christian; there is a National militia; military service compulsory. The Bulgarians were originally of Finnish extraction, but coalesced with a Slavic populace, whose language was the richest of the old Slavic tongues. In

their older literature are found many valuable works, chiefly popular songs and translations of the Bible. They adopted Christianity in the 9th century. From that to the 12th their rulers were powerful over the Balkan Peninsula. Then they were conquered and ruled by the Turks for about 500 years. In 1876, on account of the atrocities of the Turkish soldiers, an insurrection broke out. Russia took the part of Bulgaria against Turkey, and the war of 1877–1878 followed. In 1879, Alexander of Battenberg, a German Prince, was made sovereign of part of Bulgaria, the rest being made a separate province called East Rumelia, to prevent Bulgaria becoming a strong State. In 1885 there was a revolution in East Rumelia, which annexed itself to Bulgaria. Servia intervened, and Alexander was forced to abdicate. Against Russia's will, Ferdinand of Saxe-Coburg accepted the vacant throne in 1887. Since 1908 the government has been that of an independent kingdom, with a responsible ministry and a single-chamber National Assembly (one member to every 20,000 of population) elected by universal manhood suffrage for four years. In 1903 Bulgaria notified the Great Powers that unless they compelled Turkey to cease the massacre of Bulgarians in Macedonia, Bulgaria would take the issue into her own hands. This declaration caused a profound sensation throughout Europe and Turkey began preparations for war, but nothing further resulted at the time.

On Sept. 30, 1912, Bulgaria allied with Servia, Greece, and Montenegro began war on Turkey (the first Balkan war), which was ended by the treaty of London, May 30, 1913, by which Turkey ceded to the Allies all its European territory west of a line drawn from Midia on the Black Sea to Enos on the Ægean, and also Crete. On June 29, 1913, she opened war on her former allies because of discontent with her share of the spoil (the second Balkan war), was badly defeated, and lost more than she had gained. In October, 1915, she allied herself with Germany, Austria, and Turkey in the great war. The Tsar Ferdinand was forced to abdicate Oct. 4, 1918, and was succeeded by his son, who reigned as Boris III. See APPENDIX: *World War.*

**Bull,** an instrument, edict, ordinance, or decree of the Pope, equivalent to the proclamations, edicts, letters patent, or ukases of secular princes.

**Bull, George Joseph,** a Canadian ophthalmic surgeon, born in Hamilton, Ontario, Feb. 16, 1848. He was graduated at McGill University in 1869, and, after studying in Paris, began the practice of medicine in Montreal, devoting himself especially to diseases of the eye. He took up his residence in Paris in 1886, and has won celebrity as an expert in ophthalmic subjects. He has written "Ophthalmia and Optometry," and many similar works.

**Bull, John,** the popular sobriquet or characteristic name applied to the English nation. Its origin is obscure. It appears to have been first used in Arbuthnot's famous satire, the "History of John Bull," written in ridicule of the Duke of Marlborough. This work is included in those of Dean Swift.

**Bull, Ole Bornemann,** a Norwegian violinist, born in Bergen, Feb. 5, 1810. He secured great triumphs both throughout Europe and in the United States by his wonderful playing. He lost all his money in a scheme to found a colony of his countrymen in Pennsylvania, and had to take again to his violin to repair his broken fortunes. He afterward settled in Cambridge, Mass., and had also a summer residence in his native city, where he died, Aug. 17, 1880.

**Bull Baiting,** the barbarous sport of setting dogs on a bull, who is tied to a stake and worried by the dogs for the amusement of the spectators. It was a favorite sport in England from a very early period, till it was finally put down by Act of Parliament in 1835.

**Bulldog,** a variety of the common dog, remarkable for its short, broad muzzle, and the projection of its lower jaw which causes the lower front teeth to protrude beyond the upper. The head is massive and broad, and the frontal sinuses large. The lips are thick and pendulous; the ears pendant at the extremity; the

neck robust and short; the body long and stout; and the legs short and thick. The bulldog is a slow motioned animal, better suited as a watchdog than for any purpose requiring activity and intelligence. He is also said to be capable of great affection for his master. His fearlessness is well known, and in fighting, bulldogs display the most indomitable spirit. They are apt to become vicious as they advance in years, but ordinarily a bulldog is not more ready than any other dog to attack persons without some cause.

The name was originally given to this dog on account of its being commonly employed in bull-baiting in the days when this barbarous sport was in vogue. The bull terrier is a dog that partakes of the character of both the bulldog and the terrier, and is rather a favorite among lovers of dogs.

**Buller, Sir Redvers Henry,** a British soldier; born in Devonshire, England, in 1839; entered the army in 1858; served in the campaigns in China (1860), Ashanti (1873–1874), South Africa (1878–1879), Egypt (1882–1884), and the Sudan (1884–1885); in 1890 succeeded Lord Wolseley as adjutant-general of the army and became lieutenant-general. On the breaking out of the Boer-British War in South Africa, in October, 1899, he was placed in command of the British forces who went to the relief of Ladysmith. On Dec. 15, following, in attempting to force the passage of the Tugela river at Colenso, he was repulsed, with a loss of 1,097 officers and men and 11 guns. After several repulses he succeeded in relieving Ladysmith, March 3, 1900. He was afterward relieved from command on the ground of failure to meet the expectations of his military superiors, and much scandal was caused by a controversy which followed regarding the responsibility for his failure. He died June 2, 1908.

**Bullet,** the projectile used for small-arms, either spherical or of an elongated form. The elongated bullet is now in general use for rifles, and there has also been introduced some means of dilating the bullet at the moment of explosion, so that it is forced into the grooves of the rifle and exactly fits the barrel.

**Bullfights,** the favorite or national diversion of the Spaniards, as now practised said to be of comparatively modern origin, having been devised by the Moors of Spain mainly for the exhibition of horsemanship, courage, and dexterity with the lance. At first it was practised by gentlemen armed only with a short spear or javelin; and on grand occasions, especially the coronation of a king, such combats are still exhibited. But generally the combatants are professionals. The excommunications of the Popes have not been sufficient to induce the Spaniards to abandon this amusement. Charles IV. abolished it; but it was soon revived again. The assailants are seldom killed in these sports. Bullfights are got up either for private gain or for the benefit of some public institution. This characteristic national sport or diversion is exhibited at Madrid through the summer at least once a week for the benefit of the general hospital. The bullfights are held in special rings or amphitheaters, that at Madrid being capable of seating 12,700 persons, its cost of erection having been $400,000.



BULL FINCH.

**Bull Finch,** a well known bird, locally known as the norskpipe, the coal-hood, the hoop, or the tony hoop, the alp, and the hope. Its song is

much prized. It is often domesticated. It is found in many lands.

**Bull Frog,** any frog which croaks with a deep rather than a sharp sound. A species of frog found in Carolina and the parts adjacent, which has a voice not unlike that of a bull. It is six or eight inches long, by three or four broad, without the legs. It swallows ducks and young goslings whole. It is difficult to catch from its length of leap, besides which it is generally left unharmed because it is said to purify rather than to pollute the water in which it lives.

**Bullhead,** various fishes having large heads.

**Bullinger, Henri,** a celebrated Swiss reformer; born in Bremgarten in 1504; died in Zurich in 1575.

**Bullion,** uncoined gold and silver in bars or in the mass. United States standard bullion contains 900 parts of pure gold or pure silver, and 100 parts of copper alloy. The coining value of an ounce of pure gold is $20.67183, and the coining value of an ounce of standard gold is $18.60465. The coining value in standard silver dollars of an ounce of pure silver is $1.2929, and the coining value of an ounce of standard silver is $1.1636.

**Bull Run,** or **Bull's Run,** a stream in Virginia, dividing Fairfax and Prince William counties, in the N. E. part of the State, and flowing into the Occoquan river 14 miles from the Potomac. On its banks were fought two of the most memorable battles during the Civil War. After a series of heavy skirmishes, July 16–19, 1861, the Union army under General McDowell was on the 21st utterly routed by the Confederates under the command of Generals Beauregard and J. E. Johnston. The Union loss was about 3,000 men, while that of the Confederates was estimated at nearly 2,000 men. The former lost, in addition, 27 guns, besides an immense quantity of small arms, ammunition, stores, provisions, and accoutrements. On Aug. 30, 1862, another great battle was fought here between the Union forces commanded by General Pope, and the Confederates under Generals Lee, Longstreet, and "Stonewall" Jackson, when the former were again defeated with heavy loss. The three battles of Groveton, Bull's Run, and Chantilly, fought in three successive days, cost the Union cause about 20,000 men in killed, wounded, missing, and prisoners, 30 guns, and 30,000 small arms. The first battle of Bull Run is sometimes known as the battle of Manassas.

**Bull Terrier,** a variety of dog, a cross breed between the bull dog and terrier.

**Bulnes, Manuel,** a Chilian soldier and statesman, born in Concepcion, Dec. 25, 1799. He served in most of the battles of the Chilean revolution. In 1838 he commanded the Chilean army of 5,000 men against Santa Cruz, in Peru, and was finally instrumental in driving Santa Cruz from the country and breaking up the Peru-Bolivian confederation. In 1841 he was elected President of Chile and served for 10 years. He was afterward Senator and Councilor of State. He died in Santiago, Oct. 18, 1866.

**Bulow, Hans Guido von,** a German pianist and composer, born in Dresden, Jan. 8, 1830; died in Cairo, Feb. 13, 1894.

**Bulow, Karl Eduard von,** a German author, born at Burg vor Eilenburg in Saxony in 1803; died in 1853.

**Bulow, Margarete von,** a German novelist, born in Berlin in 1860. She lost her life in an attempt to rescue a boy from drowning, in 1885.

**Buloz, Francois,** born near Geneva, Switzerland, 1803, died at Paris in 1877; founder and editor of the "Revue des Deux Mondes," the celebrated French fortnightly literary magazine.

**Bulrush,** or **Bullrush,** called also cat's tail or reed mace. The bulrush of Scripture is the translation of two distinct Hebrew words, agmon, possibly an arundo or some similar genus, in Isa. lviii: 5, and gome, evidently the papyrus nilotica (Ex. ii: 3, Isa. xviii: 2).

**Bulthaupt, Heinrich Alfred,** a German poet and dramatist, born in Bremen, Oct. 26, 1849. On quitting the university he was for a while a private tutor; then he traveled in the East, in Greece, and in Italy. He was a lawyer in his native town for

some years, and in 1879 became custodian of the city library. Of his dramatic compositions the list is very long.

**Bulwer, Henry Lytton Earle (Lord Dalling),** an English author and diplomatist, brother of Sir Edward Bulwer-Lytton, born Feb. 13, 1801; died in Naples, May 23, 1872.

**Bulwer-Clayton Treaty,** a treaty negotiated at Washington, D. C., in April, 1850, by John M. Clayton, Secretary of State under President Taylor, and Sir Henry Bulwer, British Minister to the United States. The treaty provided that neither the United States nor Great Britain should attempt to control a proposed canal across Nicaragua. The treaty provided further for the neutrality of the canal, and it guaranteed encouragement to all lines of interoceanic communication. The terms of the treaty were afterward much disputed. On March 3, 1899, Congress passed a bill providing for the construction of a canal on the Nicaragua route, which also authorized the President to open negotiations with Great Britain for the abrogation of the Bulwer-Clayton Treaty, and under the last clause a convention between the two countries, abrogating portions of the treaty, was signed in Washington, Feb. 5, 1900.

**Bulwer-Lytton.** See LYTTON, EDWARD GEORGE EARLE.

**Bulyea, George Henry Vicars,** a Canadian official; born in Gagetown, N. B., Feb. 17, 1859; removed to Qu'appelle (in the former Assiniboia District, N. W. T.); became Commissioner of Yukon Territory, Territorial Secretary and Minister of Agriculture, and the first lieutenant-governor of the new Province of Alberta (1905).

**Bunce, Oliver Bell,** author and editor, born New York, Feb. 8, 1828. He edited "Appleton's Journal," "Picturesque America," "Picturesque Europe," "Picturesque Palestine," etc., and wrote "Romance of the Revolution," "Don't: A Manual of Mistakes and Improprieties," "My House: An Ideal;" a novel, and plays. He died at New York, May 15, 1890.

**Buncombe,** a county in North Carolina. The term bunkum, meaning talking for talking's sake, bombastic speech making, is said to have originated with a Congressional member for this county, who declared that he was only talking for Buncombe when attempts were made to cut his oratory short.

**Bundesrath,** the German Federal Council which represents the individual States of the Empire, as the Reichstag represents the German nation. It consisted (1916) of 61 members, appointed by the Governments of the individual States for each session, while the Reichstag had 397 members, elected by popular ballot. The duration of the legislative period is five years. The Bundesrath is quite similar to the United States Senate.

**Bungalow,** originally a kind of house erected by Europeans in India; now very popular in the United States for a summer residence.

**Bunion,** a term applied in surgery to enlarged bursæ, or synovial sacs, situated on any part of the foot. In the great majority of cases, bunions are directly produced by the pressure of badly fitting boots; and if the boots are constructed of patent leather, or any material which stops the excreting action of the skin, this, too, may be regarded as an indirect cause of their formation. Sometimes, however, the tendency to suffer from bunions is hereditary, and almost irremediable. A bunion begins as a painful and tender spot at some point exposed to pressure; the part gradually enlarges, and there are indications of an effusion into a natural bursa or a newly formed sac. The disease sometimes proves so troublesome that amputation of the toe, or excision of the ends of the bones affected, has been resorted to.

**Bunker Hill,** an eminence, 110 feet high, in the Charlestown district of Boston, Mass., connected by a ridge with another elevation, 75 feet high, named Breed's Hill. These heights are memorable as being the seat of a battle, June 17, 1775, and known under the name of Bunker Hill. The city of Boston was occupied by the British under General Gage, who had resolved to begin offensive operations against the rebels. This design becoming known in the American camp, it was determined to seize and fortify

the heights of Charlestown on the night of June 16. The execution of this perilous mission was confided to Colonels Prescott and Pepperell at the head of a brigade of 1,000 men; and at dawn of day a strong redoubt was already completed on Breed's Hill. About 1,500 Americans advanced successively to the relief of Prescott, and General Warren entered the redoubt as a volunteer, refusing the command which was tendered to him. At about 2.30 o'clock, two columns of the British advanced to a simultaneous assault; they were received with a terrific fire, and twice repulsed in disorder. When the Americans had exhausted all their ammunition, Prescott gave the order for retreat. They received a destructive volley as they left the redoubt, and Warren fell, shot through the head with a bullet. The retreat was harassed by a raking fire from the British ships and batteries, but there was no pursuit beyond Charlestown Neck. The British loss was 226 officers and men killed, and 828 wounded; that of the Americans 145 killed or missing, and 304 wounded. Although a defeat, the moral result of this action was great. The Americans had seen superior numbers of the disciplined soldiers of England retreat before their fire, and given the proof that they were able to defend their liberties. On Breed's Hill, and near the spot where Warren fell, stands now the Bunker Hill Monument, the corner stone of which was laid by the Marquis de Lafayette, June 17, 1825. This monument was inaugurated June 17, 1843. It consists of a plain granite shaft, 220 feet high, 31 feet square at the base, and 15 at the top. The monument affords a magnificent panoramic view of the surrounding country.

**Bunner, Henry Cuyler,** an American poet and story writer; born in Oswego, N. Y., Aug. 3, 1855; became a journalist in 1873, and was editor of "Puck" from shortly after its start till his death. He died in Nutley, N. J., May 11, 1896.

**Bunsen, Christian Karl Josias, Chevalier,** a distinguished German statesman and philosopher; born in Korbach, in the principality of Waldeck, Aug. 25, 1791; died in Bonn, Nov. 28, 1860.

**Bunsen, Robert Wilhelm Eberhard,** a German chemist; born in Gottingen, March 31, 1811. He was successively professor in Cassel, Marburg and Heidelberg. Among his many discoveries and inventions are the production of magnesium in quantities, magnesium light, spectrum analysis, and the electric pile and the burner which bear his name. He died in Heidelberg, Aug. 16, 1899.

**Bunsen Battery,** a modification of the Grove battery, plates or bars of gas coke being used instead of platinum. The electromotive force is slightly less than that of the Grove battery.

**Bunsen's Burner,** a form of gas burner especially adapted for heating, consisting of a tube, in which, by means of holes in the side, the gas becomes mixed with air before consumption, so that it gives a non-luminous smokeless flame.

**Bunt,** attacks the ears of wheat, completely filling the grains with a black, fetid powder. This powder is a mass of spherical, reticulated spores, which, when crushed, give out a most disagreeable smell. It was formerly called stinking rust. Bread made from flour containing this fungus has a disagreeable flavor and a dark color. Such flour, however, is said to be sometimes used in the manufacture of gingerbread, the molasses effectually disguising the flavor. The presence of bunt is readily detected by the microscope.

**Bunting,** the popular name of a number of insessorial birds, as the common bunting, the rice bunting, the Lapland, snow, black-headed, yellow, cirl, and ortolan buntings. The snow bunting is one of the few birds which cheer the solitudes of the Polar regions.

**Bunting,** a thin woolen stuff, of which the colors and signals of a ship are usually formed; hence a vessel's flags collectively.

**Bunyan, John,** author of the "Pilgrim's Progress," was the son of a tinker, and was born in the village of Elstow, near Bedford, England, in 1628. After receiving a scanty education, he for some time led a wandering life. During the civil war he served as a soldier, most probably in

the army of the Parliament; and his mind now became impressed with a deep sense of religion. This reformation in his life was powerfully assisted by the piety of his wife, whom he married in 1648 or 1649, and who died some seven years later. He joined a Nonconformist body in Bedford, and at length in 1657 formally undertook the office of a public teacher among them. Acting in defiance of the severe laws enacted against dissenters from the Established Church, Bunyan was arrested on Nov. 12, 1660, and committed for trial to the county jail. He was indicted at the quarter-sessions early in 1661, and after an irregular trial was sentenced to three months' imprisonment, which was to be followed by banishment if he persisted in his determination to repeat his offense. He could not be induced to moderate his zeal, and consequently though not banished, he lay in prison almost continuously till 1672, and was again imprisoned in 1675 for six months.

To this confinement he owes his literary fame, for, in the solitude of his cell, his ardent imagination, brooding over the mysteries of Christianity, the miraculous narratives of the sacred Scripture, and the visions of Jewish prophets, gave birth to that admired religious allegory, the "Pilgrim's Progress"—a work which, like "Robinson Crusoe," has remained unrivaled amid a host of imitators. The first edition appeared in 1678; the second, describing the journey of Christian's wife and children, was published in 1684. His "Holy War made by Shaddai upon Diabolus" (1682), his other religious parables, and his devotional tracts, which are numerous, are also remarkable, and many of them valuable. He died during a visit to London, Aug. 31, 1688.

**Buoy,** any floating body employed to point out the particular situation of a ship's anchor, a shoal, the direction of a navigable channel, etc. They are made of wood, or, now, more commonly of wrought iron plates riveted together and forming hollow chambers. They are generally moored by chains to the bed of the channel, etc. They are of various shapes, and receive corresponding names; thus, there are the can buoy, the nun buoy; the bell, mooring, whistling, etc. buoys. A life-buoy is one intended to keep a person afloat.

**Burbage, Richard,** a noted English actor and contemporary of Shakespeare, b. 1567, d. 1619.

**Burbank, Luther,** American horticulturist, b. Lancaster, Mass., Mar. 7, 1849. The son of a farmer, he became interested in plant life and earned a world-wide reputation on the Burbank Exposition Farms at Santa Rosa, Cal., in new developments through cross-breeding. He originated the plumcot, a new fruit; a white blackberry; new apples; gold and pitless plums; a new potato; an edible thornless cactus for desert travelers; new prunes, roses, violet-odored lilies, etc., the number of fruits and flowers which he improved being unequaled. In 1905 the Carnegie Institution granted him $10,000 yearly for 10 years to continue his work.

**Burbot,** or **Burbolt,** a fish of the cod family, shaped like an eel.

**Burbridge, Stephen Gano,** an American military officer, born in Scott county, Ky., Aug. 19, 1831; organized for the Union army the famous 26th Kentucky Regiment, which he led at Shiloh; led the charge at Arkansas Post and at Port Gibson, being the first to enter each of these places; retired 1865; died 1894.

**Burch, Charles Summer,** an American clergyman; born in Pinckney, Mich., June 30, 1854; was engaged for several years in editorial work; ordered deacon in the Protestant Episcopal Church in 1895, and ordained priest in 1905; and in 1910 was elected the first suffragan bishop (for New York) of the Episcopal Church in America. Died, 1920.

**Burchard, Samuel Dickinson,** an American Presbyterian clergyman, born in Steuben, N. Y., Sept. 6, 1812; for many years pastor in New York city; created much political excitement throughout the United States by an alliterative characterization of the Democratic Party during the Presidential campaign of 1884. A company of clergymen, about 600 in number, called on James G. Blaine, the Republican candidate, at the Fifth Avenue Hotel, New York city, where Burchard made an address, in which

he affirmed that the antecedents of the Democracy were "Rum, Romanism, and Rebellion." He died in Saratoga, N. Y., Sept. 25, 1891.

**Burckhardt, Johann Ludwig,** a Swiss traveler, born in Lausanne in 1784. He went to England in 1806, and undertook a journey of exploration to the interior of Africa for the African Association. He started in 1809, assuming an Oriental name and costume; spent some time in Syria, thence visited Egypt and Nubia; spent several months at Mecca, and visited Medina; and, after a short stay in Egypt, died at Cairo while preparing for his African journey, in 1817.

**Burden, Henry,** an American inventor, born in Dumblane, Scotland, April 20, 1791; was brought up on a farm, and, at an early age, showed his inventive genius by making a variety of labor-saving machinery, including a threshing machine. He came to the United States in 1819; engaged in the manufacture of agricultural implements; invented an improved plow; the first cultivator made in this country; machines for making horse shoes and hook headed spikes used on railroads; a self-acting machine for rolling iron into bars; and a new machine for making horse shoes, which received a rod of iron and turned out completed shoes at the rate of 60 a minute. He died in Troy, N. Y., Jan. 19, 1871.

**Burdett, Sir Francis,** an English politician, born Jan. 25, 1770. He sat in the British Parliament for 40 years, as a Liberal of the most ultra type; was one of the earliest advocates of Parliamentary reform, and suffered bitter persecutions at the hands of the Tory government of those times. He was twice imprisoned in the Tower of London for his outspoken Liberalism, fined $5,000, and condemned to three months' further imprisonment in the King's Bench. He died Jan. 23, 1844.

**Burdette, Robert Jones,** an American journalist and humorist, born in Greensboro, Pa., July 30, 1844. He served in the Union army during the Civil War. He was famous for humorous newspaper skits, of rare variety, charm, and freshness. Licensed as a Baptist clergyman in 1887; died Nov. 19, 1914.

**Burdett-Coutts, The Right Hon. Angela Georgina, Baroness,** daughter of Sir Francis Burdett, born April 21, 1814. In 1837 she inherited much of the property of her grandfather, Thomas Coutts, the banker, on the death of his widow, Miss Mellon, the actress once, afterward Duchess of St. Albans. Besides spending large sums of money in building and endowing churches and schools, she endowed the three colonial bishoprics of Cape Town, Adelaide, and British Columbia, founded an establishment in South Australia for the improvement of the aborigines, organized the Turkish Compassionate Fund (1877), and established a fishery school at the Irish village of Baltimore (1887). To the city of London she presented, besides several handsome fountains, the Columbia Market, Bethnal Green (1870), for the supply of fish in a poor district; she also built Columbia Square, consisting of model dwellings at low rents, for about 300 families; and the People's Palace owes much to her generosity. In 1871 she accepted a peerage. In 1881 she was married to William Ashmead-Bartlett (born in 1846), who in 1882 obtained the royal license to assume her name. She died in London, Dec. 30, 1906.

**Burdick, Francis Marion,** an American jurist and legal writer, born in De Ruyter, N. Y., Aug. 1, 1845. He was graduated at Hamilton College in 1869 and at its Law School in 1872. He practiced law at Utica, N. Y., from 1872 to 1883, and was later Professor of Law at Hamilton College and at Cornell. Since 1891, he has been Professor of Law at Columbia. He has written a number of legal text books. Died, 1920.

**Bureau, Jacques,** a Canadian lawyer; born in Three Rivers, P. Q., July 9, 1860; was admitted to the bar in 1882; lived in Winnipeg and Duluth, Minn. Member of Parliament for Three Rivers and St. Maurice in 1900 and 1904; became Solicitor-General of Canada in 1907.

**Bureaucracy,** government by departments of State, acting with some measure of independence of each other, instead of government by the heads of those departments acting as a cabinet on their joint responsibility.

**Burger, Gottfried August,** a German poet, born in Molmerswende, Anhalt, Dec. 31, 1747; died in Gottingen, June 8, 1794.

**Burgess, Edward,** an American naval architect, born in West Sandwich, Mass., June 30, 1848. He was educated at Harvard, where he graduated in 1871, and became secretary of the Boston Society of Natural History. He was instructor of entomology at Harvard from 1879 to 1883. He then became a designer of sailing yachts. In 1884 he designed the "Puritan," the winner of the America's Cup in 1885; and a year later the "Mayflower," the winner in 1886. He died in Boston, Mass., July 12, 1891.

**Burgess, James,** a Scotch Orientalist, born in Kirkmahoe, Dumfriesshire, Aug. 14, 1832. He went to India in 1855 and became director-general of archæological surveys there.

**Burgess, John William,** an American educator; born in Cornersville, Tenn., Aug. 26, 1844. He was educated at Cumberland University, Lebanon, Tenn., and at Amherst. He studied law and began its practice at Springfield in 1869. During this year he was appointed Professor of English Literature and Political Economy at Knox College. Two years later, he studied abroad at Gottingen, Leipsic, and Berlin. On his return, he became Professor of History and Political Science at Amherst, and in 1876 Professor of History, Political Science and International Law in Columbia Univ., where in 1890 he attained the deanship of the faculty of Political Science. In 1906-07, he was the first to hold the "Roosevelt Professorship of American History and Institutions" in the University of Berlin.

**Burgh,** the same as borough. In the United States the termination borough was for generations added to the names of places, as in England; but, under a decision of the United States Board on Geographic Names, the form is now boro, as Brattleboro.

**Burglary,** the crime of breaking into an inhabited house by night with intention of committing a felony. In the United States burglary is punished by State laws, but the common law is generally followed. Some States include breaking into shops, offices, warehouses, factories, and meeting houses as burglary. An Act of Congress of 1825 expressly includes breaking into boats and vessels with intent to commit a felony. In some States the same deed done in the daytime is defined as burglary in the second degree. The night is the time, between one hour after sunset and one hour before sunrise, or when the features of a man cannot be clearly discerned. In North Carolina burglary is punishable by death, but the usual penalty is a long term of imprisonment.

**Burgkmair,** a family of German artists in the 15th and 16 centuries, the best known of whom is Hans, born in Augsburg in 1472. He is supposed to have died in 1559.

**Burgos,** a city of Northern Spain, once the capital of the kingdom of Old Castile, and now the chief town of the Province of Burgos. It stands on the declivity of a hill on the right bank of the Arlanzon, and has dark narrow streets full of ancient architecture but there are also fine promenades in the modern style. The cathedral, commenced in 1221, is one of the finest examples of Gothic architecture in Spain. It contains the tombs of the famous Cid, and of Don Fernando, both natives of Burgos, and celebrated throughout Spain for their heroic achievements in the wars with the Moors. Before the removal of the court to Madrid, in the 16th century, Burgos was in a very flourishing condition, and contained thrice its present population (Est.) 35,000. The Province has an area of 5,480 square miles, largely hilly or mountainous, but with good agricultural land. Pop. (1919) 350,000.

**Burgoyne, John,** an English general and dramatic author, born Feb. 24, 1723. After having served with distinction in Portugal, he was sent to America in 1775. He joined General Gage at Boston, with large reinforcements, and witnessed the battle of Bunker Hill, of which he has left an animated description. After proceeding to Canada as Governor, he returned to England, but in 1777 was dispatched to take command of that expedition from Canada against the

United States, the failure of which so largely contributed to the establishment of American freedom. Few battles, indeed, have achieved, in their ultimate influence, results so great as the surrender of Burgoyne with 5,791 fighting men, well provided with artillery, at Saratoga, to the army of General Gates. He died in London, Aug. 4, 1792.

**Burgundy,** a region of Western Europe, so named from the Burgundians, a Teutonic or Germanic people originally from the country between the Oder and the Vistula. Burgundy is now represented by the four Departments of Yonne, Cote-d'Or, Saone-et-Loire, and Ain. It is watered by a number of navigable rivers, and is one of the most productive provinces in France, especially of wines.

**Burgundy Wine,** the finest of all the French wines, the produce of vines cultivated in the Cote-d'Or, a portion of the ancient Province of Burgundy.

**Burial,** the most general method of disposing of the dead, the practice of burning them on a funeral pile, prevalent to a limited extent among the Greeks and the Romans, and nearly universal among the Hindus, being the exception and not the rule. The Egyptians, and, at least in some special cases, the Jews, embalmed their dead (Gen. l: 3, 26; John xix: 39, 40). In Europe, according to Sir John Lubbock, interments in which the corpse is in a sitting or contracted posture belong to the stone age, and those in which it has been burned and only the ashes interred, to the bronze age, and those in which the corpse lies extended, presumably to the age of iron. In ancient Peru, however, and some other parts of America this form of interment was within the recent historic period.

**Buriats,** a nomadic Tartar people allied to the Kalmucks, inhabiting the S. part of the government of Irkutsk and Transbaikalia. Their number is about 200,000. They live in huts called yurts, which, in summer, are covered with leather, in winter with felt.

**Buriti,** a South American palm growing to the height of 100 to 150 feet, preferring marshy situations, and bearing an imposing crown of fan shaped leaves. A sweet vinous liquor is prepared from the juice of the stem, as also from the fruits.

**Burke, Edmund,** a British orator and statesman; born in Dublin, Ireland, Jan. 12, 1729. The first speech of Burke in Parliament was on the Grenville Stamp Act; and it was at his advice that the Rockingham administration took the middle and undecided course of repealing the act, and passing a law declaratory of the right of Great Britain to tax the American colonies. This ministry was soon dissolved to make room for a new cabinet under Pitt. He opposed the ministerial measures antecedent and consequent to the American war; and the whole powers of his eloquence were exerted first to prevent, and then to heal the fatal breach between the mother country and her colonies. In 1774 he was chosen member for Bristol, and for the next eight years Fox warmly supported him in his opposition to Lord North's administration. In 1778 he delivered his famous speech against the employment of the Indians in the American war. The last great act of his political life was his condemnation of the French Revolution. He died July 9, 1797.

**Burke, John Benjamin Butler,** Irish scientist; scholar and gold medalist of Trin. Coll., Dublin; research degree, Cambridge Univ., 1900; in 1905 demonstrated spontaneous generation by "radiobe" cultures showing growth and sub-division. He was anticipated, in 1904, by Prof. Dubois's radium, and also barium, "eobes."

**Burke, Robert O'Hara,** an Irish explorer; one of the first white men to cross the Australian continent from S. to N., was born at St. Cleram, County Galway, in 1820; educated in Belgium; served in the Austrian army (1840), became captain, joined the Irish constabulary (1848), and emigrated to Australia in 1853. While inspector of police in Victoria he accepted the leadership of an expedition for crossing the Australian continent. After many hardships, Burke and Wills reached the tidal waters of the Flinders river. He died of starvation on his return journey, June 28, 1861.

**Burleson, Albert Sidney,** an American executive, born in San

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Marcos, Tex., June 7, 1863; was graduated at the University of Texas in 1884; admitted to the bar in 1885; Representative in Congress in 1899-1913; re-elected but resigned to become Postmaster-General, March 5, 1913.

**Burlingame, Anson,** an American diplomatist, born in New Berlin, N. Y., Nov. 14, 1822. He was sent as United States Minister to China in 1861, and on his retirement from this post, in 1867, he was requested by the Regent, to go on a special mission for the Government to foreign courts. Died in St. Petersburg, Feb. 23, 1870.

**Burlingame, Edward Livermore,** an American man of letters, born in Boston, May 30, 1848. He was private secretary to his father, Anson Burlingame; after 1879 was associated with the house of Charles Scribner's Sons; and in 1886 became editor of "Scribner's Magazine."

**Burlington,** city and capital of Chittenden county, Vt.; on Lake Champlain and the Central Vermont and Rutland railroads; 40 miles N. W. of Montpelier; has exceptionally fine scenic environments, a commodious harbor protected by a breakwater and enhancing its value a port of entry, and flour, cotton, saw, and planing mills, and machine shops; is the seat of the State University and the State Agricultural College, and the see of a Protestant Episcopal and a Roman Catholic bishop. Pop. (1920) 22,779.

**Burlington,** city and capital of Des Moines county, Ia.; on the Mississippi river and the Chicago, Burlington & Quincy and other trunk line railroads; 206 miles W. of Chicago. It is in a noted bituminous coal region; is an important distributing point in general trade and especially in grain; has large building and paving brick plants, a considerable output of steam and gas engines, farming machinery and implements, patent medicines, and woolen goods, and the machine shops of the Chicago, Burlington & Quincy railroad. Pop. (1920) 24,057.

**Burma,** a province of British India; on the E. side of the Bay of Bengal; bounded on the E. by Siam, the Laos territory, and China, and on the N. and N. W. chiefly by Assam and other parts of India. At one time it formed the greater portion of a native empire, its greatest length being about 1,200 miles, and its breadth 600; its area being then about 270,000 English sq. m. In 1826 Arracan and Tenasserim, in 1852 Pegu and Martaban, and in 1886 the rest of the kingdom was annexed by Great Britain, King Theebaw deposed, and British or Lower Burma and Upper Burma united in one province under a lieut.-gov. The chief towns are Mandalay, cap. Upper Burma; Rangoon, cap. Lower Burma; and Moulmein. Rice, wheat and other grains, cotton, tobacco, sugar cane and tea are cultivated, the famous ruby mines worked, and the oil fields exploited by the American Standard Oil Co. All outside oil is excluded by law. Area (1916) 230,839 square miles; pop. (1921) 13,000,000; capital of Lower Burma, Rangoon (pop. 293,316), of Upper Burma, Mandalay (pop. 138,299).

**Burmeister, Hermann,** a German scientific writer, born in Stralsund, Jan. 15, 1807; distinguished himself as a geologist and zoologist in his native country, and settled permanently in the Argentine Republic, where he continued his investigations. He died in Buenos Ayres, Argentine Republic, May 2, 1892.

**Burmeister, Richard,** a German-American musical composer; born in Hamburg, Germany, Dec. 7, 1860; received an academical education in Hamburg; studied with Franz Liszt, and in Rome, Budapest, and Weimar; made concert tours in Europe in 1883–1885 and in the winter of 1893; was at the head of the piano department of Peabody Institute, Baltimore, Md., in 1885–1897; and settled in New York in the latter year. He made concert tours all over the United States and was director of the Scharwenka Conservatory, New York, in 1897–1899.

**Burnaby, Frederick Gustavus,** soldier, traveler, and author, born in Bedford, England, March 3, 1842; a son of the Rev. G. A. Burnaby. On Jan. 17, 1885, while serving as lieutenant-colonel of the Royal Horse Guards in the Egyptian campaign, he was killed at the battle of Abu-Klea.

**Burnand, Francis Cowley,** an English author and dramatist, born Nov. 29, 1836. He was editor of "Punch" in 1880-1906. He wrote the libretto for Sullivan's "Chieftain" (1894). Knighted, 1902; died, 1919.

**Burne-Jones, Sir Edward,** an English painter, born in Birmingham, Aug. 28, 1833; died in London, July 17, 1898.

**Burnet, Jacob,** an American jurist, born in Newark, N. J., Feb. 22, 1770. Admitted to the bar in 1796, he removed to Cincinnati, then a village with about 500 inhabitants, and was a member of the territorial government from 1799 till the establishment of a State Government in 1803. In 1821 he was appointed Judge of the Supreme Court of Ohio, and was elected United States Senator in 1828. Burnet was elected a member of the French Academy of Sciences upon the recommendation of Lafayette. He died in Cincinnati, May 10, 1853.

**Burnett, Frances Hodgson,** an Anglo-American novelist, born in Manchester, England, Nov. 24, 1849. Her family removed to Tennessee in 1865. She early wrote stories. In 1873 Miss Hodgson married Dr. Burnett, from whom she obtained a divorce in 1898, afterwards marrying Stephen Townsend. Her most successful work was "Little Lord Fauntleroy." "The Making of a Marchioness." Died, 1924.

**Burney, Charles,** an English composer and writer on music; born in Shrewsbury, England, April 7, 1726; died April 12, 1814.

**Burney, Frances (Madame d'Arblay),** an English novelist, daughter of Charles Burney; born in King's Lynn, Norfolk, June 13, 1752; died in Bath, Jan. 6, 1840.

**Burnham, Clara Louise,** an American story writer, born in Newton, Mass., May 25, 1854. She is the daughter of George F. Root, and has lived in Chicago since childhood. She has written several novels, and has also written libretti for her father's cantatas.

**Burnham, Daniel Hudson,** an American architect, born in Henderson, N. Y., Sept. 4, 1846. He studied architecture in Chicago and designed notable structures there, including the Rookery, Calumet Club, the Temple, Masonic Temple, the Great Northern Hotel, etc. He was Director of Works at the Chicago World's Fair. He died June 1, 1912.

**Burnham, Sherburne Wesley,** an American astronomer, born in Thetford, Vt., in 1838. He took up astronomy as an amateur, and, in 1876, became connected with the Chicago Observatory, and later with the Lick Observatory, receiving also an appointment as Professor of Practical Astronomy at the University of Chicago. He has made notable discoveries of double stars, having catalogued 1,274 new ones. Died, 1921.

**Burning,** a mode of capital punishment formerly common in civilized countries.

In metal working, joining metals by melting their adjacent edges, or heating the adjacent edges and running into the intermediate space some molten metal of the same kind. In ceramics, the final heating of clay ware, which changes it from the dried or biscuited condition to the perfect ware. The glaze or enamel is applied to the baked ware, and is vitrified in the burning.

**Burning Glass,** a convex lens of large size and short focus, used for causing an intense heat by concentrating the sun's rays on a very small area. The larger the circular area of the lens and the smaller the area of the spot on which the concentrated rays fall, the greater is the effect produced. Concave mirrors have been used for similar purposes, and are also called burning glasses. Their power was known to Archimedes, and it is mythically stated that by their aid he burned a fleet in the harbor of Syracuse, 214 B. C.

**Burnisher,** a tool for smoothing or pressing down surfaces to close the pores or obliterate lines or marks. The engraver's burnisher is made of steel, elliptical in cross section, and coming to a dull point like a probe. Some burnishers are made of the canine teeth of dogs. Burnishers of bloodstone are used for putting gold leaf on china ware. Agate burnishers are used by bookbinders. The gilder's burnisher is of agate or porphyry.

**Burnley,** a parliamentary and municipal borough of England, in Lan-

cashire, about 22 miles N. of Manchester. It presents a modern appearance, and is, generally speaking, well built, mostly of stone. The staple manufacture is cotton goods, and there are large cotton mills and several extensive foundries and machine shops, with collieries and other works, in the immediate vicinity. Pop. (1921) 103,175.

**Burns, Alexander,** a Canadian educator, born in Castlewellan, Ireland, Aug. 12, 1834. He went to Canada in 1847, and was graduated at Victoria College, Toronto, in 1861, joining the Methodist Church. From 1868 to 1878 he was President of Wesleyan Ladies' College, Hamilton, Ontario. He was tried for heresy by the Ontario Methodist Conference in 1882, but acquitted. He died May 22, 1900.

**Burns, Anthony,** a fugitive slave, born in Virginia in 1836; arrested in Boston in 1854, under the Fugitive Slave Law. An indignation meeting, in which Theodore Parker and Wendell Phillips participated, was held in Faneuil Hall, while a premature and unsuccessful attempt to rescue Burns under the leadership of Thomas W. Higginson resulted in bloodshed and the death of one of the deputies. When the courts decided that the extradition was legal, Burns was escorted by a strong guard to a revenue cutter, and a riot was barely averted. Burns afterward regained his liberty, studied at Oberlin College, and became a Baptist minister in Canada. He died in St. Catherine, Canada, July 27, 1862.

**Burns, John,** an English labor organizer and Socialist leader, born in London in 1858. He was of humble birth and became a factory boy at the age of 10. By working a year as engineer on the Niger river, he earned enough for a six months' tour of Europe. He constantly addressed audiences of workmen, and in 1887 was imprisoned for maintaining the right of public meeting in Trafalgar Square. In 1892 he was elected to the London County Council, and to Parliament from Battersea, and in 1905-06 became a member of the British Cabinet as President of the Local Government Board.

**Burns, Robert,** Scotland's national poet; born in a clay-built cottage less than 2 miles S. of the town of Ayr, and not far from the river Doon, Jan. 25, 1759. His father, William Burness (for so the name was originally spelled), the son of a Kincardineshire farmer, and a worthy and intelligent man, at the time of the poet's birth occupied a few acres of land, and acted as gardener and overseer for a neighboring gentleman. His mother, Agnes Brown, belonged to Ayrshire. He died at Dumfries, Scotland, July 21, 1796. His fame has increased as years go on, and his birthday is honored everywhere throughout the civilized world, while the poems for which he was glad to accept a few pounds have brought vast sums to booksellers.

**Burns** and **Scalds,** injuries produced by the application of excessive heat to the human body. They are generally dangerous in proportion to the extent of surface they cover, and a widespread scald may cause serious consequences on account of the nervous shock.

**Burnside, Ambrose Everett,** an American military officer, born in Liberty, Ind., May 23, 1824; served an apprenticeship to a tailor, but received a nomination to West Point, where he graduated in 1847. He left the army as First Lieutenant in 1852, but returned as Colonel of Volunteers in 1861, commanded a brigade at Bull Run, and, in February, 1862, captured Roanoke Island. Having rendered important services at South Mountain and Antietam, he, in November, reluctantly superseded General McClellan. On December 13, he crossed the Rappahannock, and attacked General Lee near Fredericksburg, but was repulsed with a loss of over 10,000 men, and was soon after transferred to the Department of Ohio. In November, 1863, he successfully held Knoxville against a superior force and, in 1864 he led a corps, under General Grant, through the battles of the Wilderness and Cold Harbor. Resigning in April, 1865, he was elected Governor of Rhode Island (1866–1868), and United States Senator in 1875 and 1881. He died in Bristol, R. I., Sept. 13, 1881. Although unsuccessful in high command

he gained universal esteem by his frankness in avowing responsibility for defeat.

**Burnt Offering,** one of the sacrifices divinely enjoined on the Hebrew Church and nation. It is called, in their language, olah, from the root alah = to ascend, because, being wholly consumed, all but the refuse ashes was regarded as ascending in the smoke to God.

**Burr, Aaron,** an American statesman, and third Vice-President of the United States, born in Newark, N. J., Feb. 5, 1756. While in his 20th year he joined, in 1775, the American army, under Washington, at Cambridge. His ardor in behalf of the Revolutionary cause was such that he was induced to join Arnold as a volunteer in the expedition against Quebec, and he was appointed aide-de-camp to Montgomery. In 1776, he was received by General Washington as one of his military family, but was soon cast off. He never forgave Washington this act. Burr's military talents secured for him the post of Lieutenant-Colonel in 1777, which he retained until 1779. Upon Burr's retirement from military life he resumed the study of law, and commenced its practice in Albany in 1782, but soon removed to New York. In 1789 he was made attorney-general of New York. From 1791 to 1797 he was a member of the United States Senate. In 1800 he was a candidate for the Presidency, and received the same number of votes as Thomas Jefferson (79), and the choice was thus left to the decision of Congress, which, on the 36th ballot, elected Jefferson as President and Burr as Vice-President. In 1804 was fought the famous duel between Alexander Hamilton and Burr, in which the former was killed. In 1807 he was apprehended, taken to Richmond, Va., and tried on a charge of a treasonable design upon the southwest, but was acquitted. He resumed the practice of law, but lived in comparative obscurity until his death on Staten Island, Sept. 14, 1836. In his later life he was for a time husband of the noted Madame Jumel.

**Burr, Edward,** an American military officer; born in Booneville, Mo., May 19, 1859; was a student in Washington University in 1874–1878, and at the United States Military Academy in 1878–1882, and was graduated at the latter and assigned to the corps of engineers with the rank of 2d lieutenant in the latter year. He was promoted 1st lieutenant in 1883, and captain in 1894; and as lieutenant-colonel of volunteers commanded the battalion of engineers in the campaign against Santiago de Cuba in June-July, 1898. He was a member of the American Society of Civil Engineers.

**Burr, Enoch Fitch,** an American mathematical and religious writer, born in Green's Farms, Fairfield co., Conn., Oct. 21, 1818. He was graduated from Yale in 1839, and became pastor of the Congregational Church in Lyme, Conn., in 1850. After 1868 he was a lecturer at Amherst College. He died in 1907.

**Burr, George Lincoln,** an American historian, born in Oramel, N. Y., Jan. 30, 1857. He was graduated at Cornell in 1881 and entered its faculty in 1888, being Professor of Ancient and Mediæval History there. He was Expert in History to the Venezuelan Boundary Commission (1896–1897).

**Burr, William Hubert,** an American educator; born in Waterloo, Conn., July 14, 1851; was graduated at Rensselaer Polytechnic Institute in 1872; was employed by the Wrought Iron Bridge Co., of New York city and later on the water supply and sewerage system of Newark, N. J.; was Assistant Professor, and later Professor of Rational and Technical Mechanics at Rensselaer Polytechnic Institute in 1876–1884; became assistant engineer of the Phœnix Bridge Co., in 1884, and subsequently its general manager; was Professor of Engineering in the Lawrence Scientific School of Harvard University in 1892–1893; consulting engineer to the New York city department of public works in 1893–1895, of parks and of docks in 1895–1897; and later of bridges.

**Burrill, Thomas Jonathan,** an American naturalist; born in Pittsfield, Mass., April 25, 1839; was graduated at the Illinois State Normal University in 1865; became Professor of Botany and Horticulture there in 1868, and its vice-president in 1882; was dean of the Department of Natural Sciences in 1877–1894, and acting president in 1891–1894.

**Burritt, Elihu,** an American author, called the "Learned Blacksmith," born in New Britain, Conn., Dec. 8, 1811. He was a blacksmith, linguist, lecturer, reformer and a noted advocate of peace. He died in New Britain, March 7, 1879.

**Burritt College,** a co-educational institution, in Spencer, Tenn.; organized in 1848, under the auspices of the Christian Church.

**Burroughs, George,** an American clergyman, born in 1650; was executed for witchcraft, at Salem, Mass., Aug. 19, 1692. He was graduated at Harvard in 1670, and preached in Salem in 1680. He was accused of bewitching Mary Wolcott and others by wicked arts and condemned on the evidence of the afflicted persons. At his execution he repeated without mistake the Lord's Prayer, which a witch was said to be unable to do. Cotton Mather witnessed his execution.

**Burroughs, George Stockton,** an American educator; born in Waterloo, N. Y., Jan. 6, 1855; was graduated at Princeton University in 1873, and at its Theological Seminary in 1877; removed to New England in 1880; and served in the ministry of the Presbyterian Church in Fairfield and New Britain, Conn.; and at Amherst College; was Professor of Biblical Literature in 1886–1892; president of Wabash College, Crawfordsville, Ind., in 1892–1899; and became Professor of Old Testament Language and Literature in Oberlin Theological Seminary in 1899. He died in 1901.

**Burroughs, John,** an American essayist and descriptive writer; born in Roxbury, N. Y., April 3, 1837. He taught school for about eight years, was for a time a journalist and then became a clerk in the Treasury Department and subsequently a national bank examiner. He settled on a farm in New York State and has since devoted himself to fruit culture, nature study and literature. Many of his papers were written in his bark covered study to which he has given the name "Riverby," on the banks of the Hudson. Died, 1921.

**Burrowing Owl.** In the West Indies these birds dig burrows for themselves, in which they form their nests and deposit their eggs, while in the western part of the United States they occupy the holes of the prairie dogs jointly with the dogs.

**Burrows, William,** an American naval officer, born near Philadelphia, Pa., Oct. 6, 1785. He commanded the "Enterprise" in its successful action with the British "Boxer" off the coast of Maine. Both commanders were killed in the fight, Sept. 5, 1813, and were buried side by side at Portland.

**Burt, Thomas,** an English labor leader, born in Northumberland, Nov. 12, 1837. Since 1874 he has had a seat in Parliament as a Liberal.

**Burton, Marion LeRoy,** an American educator; born in Brooklyn, Ia., Aug. 30, 1874; was ordained to the Congregational ministry in 1905; pastor of the Church of the Pilgrims, Brooklyn, N. Y., in 1908–1909; Pres. Smith College, 1910; Pres. Univ. of Michigan, 1920. Died, 1925.

**Burton, Sir Richard Francis,** an English traveler, linguist, and author; born in Barham House, Herfordshire, March 19, 1821; died in Trieste, Oct. 20, 1890.

**Buru,** or **Boeroe,** an island of the Malay Archipelago, in the Residency of Amboyna, from which it lies about 40 miles to the W. Area, with the small island of Amblau, 3,360 square miles; population variously estimated at from 10,000 to 50,000.

**Burying Beetles.** They receive their name from a practice they have of burying the carcasses of moles, mice or other small quadrupeds to afford nutriment to their larvæ.

**Busaco,** a ridge (1,826 feet) on the N. side of the river Mondego, in the Portuguese Province of Beira, 16 miles N. N. E. of Coimbra. Here Wellington, with 40,000 British and Portuguese troops, repulsed the attack of Massena with 65,000 French, Sept. 27, 1810.

**Bush Antelope,** also called BUSH BUCK, and BUSH GOAT, names common to a number of species of ANTELOPE, natives chiefly of the Southern and Western parts of Africa.

**Bushel,** a measure of capacity used for corn; or what is called dry measure. It contains 32 quarts, 8 gallons, or 4 pecks.

**Bushire, or Abushehr,** ("father of cities," also variously written Bushahr; in Persian, Bendershehr), a principal port of Persia, on a sandy peninsula on the E. shore of the Persian Gulf, in the Province of Fars. Pop. 27,000, chiefly Persians, Arabs, and Armenians.

**Bushmen,** a nomadic race of Africa. They are a thin, wiry people, poor and debased near the coast, but greatly improved further inland. They recognize no king or chief, build no houses, have no cattle or goats, do not till the soil, and wear skins for clothing. Their language has a rough, clicking sound, and they resemble the Hottentots.

**Bushnell, Horace,** an American clergyman and noted writer on religion, morality and other topics; born near Litchfield, Conn., in 1802; died in Hartford, Conn., Feb. 17, 1876.

**Bushrangers,** in Australia, originally convicts from the English penal stations who took to the bush and became robbers. The thickly wooded mountainous districts afforded them protection, and they soon established a reign of terror. They became so strong that the government had to adopt the most stringent measures to suppress them.

**Busiris,** a town of ancient Egypt, in the Delta, the chief place where the rites of Isis were celebrated. The name is also given as that of a mythical Egyptian King.

**Bussu Palm,** a palm growing in the tidal swamps of the Amazon. The stem is only 10 to 15 feet high; but the immense, undivided, coarsely serrate leaves are often 35 feet in length by 4 or 5 in width. The leaves make excellent and durable thatch. The spathe is made into bags, caps, and coarse cloth.

**Bust,** in sculpture, the representation of that portion of the human figure which comprises the head and the upper part of the body.

**Bustamante, Anastasio,** a Mexican statesman and revolutionist, born in Jiquilpan, Michoacan, July 27, 1780. In 1837 he was elected President of Mexico. In 1842 he was obliged to retire from the Presidency, and was succeeded by Santa Ana. He served in the Mexican army in the war with the United States, retiring from military service in 1848. He died in San Miguel de Allende, Feb. 6, 1853.

**Bustamante, Carlos Maria,** a Mexican statesman and historical writer, born in Mexico City in 1774. He studied law and in 1801 began its practice. In 1805 he became editor of the "Diario de Mejico." He held a command under Morelos in 1812, and was captured at Vera Cruz. He was released, and became a member of Congress and held other public offices. He published a history of the Mexican Revolution, and histories of the times of Iturbide and of Santa Ana. He died in Mexico City, Sept. 21, 1848.

**Bustard,** the name of a genus of European birds.

**Butler,** borough and capital of Butler county, Pa.; on the Conequenessing creek and the Pennsylvania and other railroads; 26 miles N. of Pittsburg; is in a natural gas, oil, coal, and iron region; and manufactures woolen and silk goods, plate glass, oil-well machinery, and steel cars. Pop. (1920) 23,778.

**Butler, Benjamin Franklin,** an American lawyer and soldier, born in Deerfield, N. H., Nov. 5, 1818; studied law, and was admitted to the bar in 1841, and became distinguished as a criminal lawyer and politician. He was a member of the State Legislature in 1853, of the State Senate in 1859–1860. Butler had risen to the rank of Brigadier-General of militia; and, at the outbreak of the Civil War, he marched with the 8th Massachusetts Regiment, and, after a check at Big Bethel, was appointed to the command of Baltimore and of Eastern Virginia, with his headquarters at Fort Monroe. In February, 1862, he commanded the military forces sent from Boston to Ship Island, near the mouth of the Mississippi; and, after New Orleans had surrendered to the naval forces under Farragut, he held military possession of the city. Relieved of his command, he acted under Gen. Grant in his operations against Petersburg and Richmond in 1865. Returning to Massachusetts at the end of the war, he took an active part in politics as an extreme radical, advocated the impeachment of President Johnson, and in 1866–1875 was a member of

Congress. In 1877 and 1879 he was defeated as a candidate for Governor of Massachusetts, but in 1882 was elected by a large majority. In 1884 he ran for the Presidency as the candidate of the Greenback and Anti-Monopolist Parties, but carried no State. He died in Washington, D. C., Jan. 11, 1893.

**Butler, Benjamin Franklin,** an American lawyer, born in Kinderhook Landing, N. Y., Dec. 17, 1795. From 1821 to 1825 he was district-attorney of Albany county. He was elected to the Assembly in 1828, and from 1834 to 1838 was United States Attorney-General. He was also acting Secretary of War during part of Jackson's administration. He died in Paris, France, Nov. 8, 1858.

**Butler, John,** a royalist leader in the American Revolution, born in Connecticut; died in Niagara in 1794.

**Butler, Nicholas Murray,** educator, b. Elizabeth, N. J., April 2, 1862. He graduated at Columbia Univ., 1882, studied in Berlin and Paris; from 1885 was assistant, tutor, professor, and dean in the faculty of philosophy, and in 1902 became Pres. of Columbia Univ. In 1917 he became actively identified with various war relief measures.

**Butler, Matthew Calbraith,** soldier and statesman, b. near Greenville, S. C., Mar. 8, 1836. He became a lawyer 1857; served as a Confederate in the Civil War; rose to Maj.-Gen.; lost his right leg in battle; was U. S. Senator 1877–95; Maj.-Gen. of Volunteers in the Spanish War and Commissioner on Cuban Evacuation. He died April 4, 1909.

**Butler, William,** an American army officer, born in Prince William county, Va., in 1759. He served in the Revolution in Pulaski's corps; afterward, under Pickens, Lee, and Greene; won fame as commander of the Mounted Rangers; and, after the war, became (1796) Major-General of militia. He died in Columbia, S. C., Nov. 15, 1821.

**Butler, William Orlando,** an American army officer and politician, born in Kentucky in 1793. He served in the War of 1812 and in the Mexican War, and became a Major-General in 1846. He was the unsuccessful Democratic candidate for Vice-President in 1848. He died in Carrollton, Ky., Aug. 6, 1880.

**Butler, Zebulon,** an American military officer, born in Lyme, Conn., in 1731. He served in the Revolutionary War and commanded the garrison at Wyoming Valley at the time of the massacre of July 3, 1778. He died in Wilkesbarre, Pa., July 28, 1795.

**Butler University,** a co-educational (non-sectarian) institution, in Irvington, Ind.; organized in 1855.

**Butt, Isaac,** an Irish patriot; the first to make political use of the phrase "Home Rule." He died May 5, 1879.

**Butte,** a French word used in the United States for an abrupt, and usually isolated, eminence, sometimes appearing in the form of a lofty turret. They occur in picturesque grandeur along the banks of the Columbia river in Oregon, and in the neighborhood of Butte, Mont.

**Butte,** a city and county-seat of Silverbow co., Mont., is the largest mining town in the world, employing over 10,000 persons in this industry alone, which is principally confined to copper mining, although there are valuable gold and silver mines. The Anaconda copper mines are located here. Pop. (1920) 41,611.

**Butter,** a fatty substance obtained from milk. Although occasionally made from the milk of goats, buffaloes, etc., it is commonly made from cow's milk. It was used by the ancients as a fuel or as an ointment or hair dressing, but is now used almost wholly as a food.

The great butter making countries of the world are the United States, Denmark, Sweden, Russia, Northern France, Germany, England and Ireland, and, in recent years, Australia must be added to the list. England imports large quantities from Canada, the United States, and Denmark, as well as from Australia. The United States is an exporting country. The Southern countries make much less butter and consume less than the Northern countries. In the South, oils, such as olive oil, take, to a considerable extent, the place of butter,

and, among the poorer classes, butter is an almost unknown article of diet.

The term butter has been occasionally applied to other substances. Certain vegetable oils which are solid at ordinary temperatures, such as palm oil, cocoanut oil, nutmeg oil, etc., are frequently called vegetable butter, and the name mineral butter has sometimes been applied to substances which are wholly different in nature. About 2,000,000,000 pounds are produced annually. Imports of butter in 1922, 9,551,292 pounds; exports, 7,511,997.

**Buttercup,** the popular name of two or three species of the ranunculus. They are common plants with brilliant yellow flowers.

**Butterfield, Daniel,** an American soldier, born in Utica, N. Y., Oct. 18, 1831. At the outbreak of the Civil War he was Colonel of the 12th New York Militia. He served in the Peninsular campaign. At Fredericksburg he commanded the 5th Corps, and at Chancellorsville and Gettysburg was chief of staff. He served as chief of staff to Hooker at Lookout Mountain, and Ringgold, and Pea Vine Creek. He was brevetted Major-General in the regular army, but resigned in 1869, and became chief of the United States sub-treasury in New York; died in Cold Spring, N. Y., July 17, 1901.

**Butterfly,** the popular name of a group of lepidopterous insects.

**Butterfly Weed,** or PLEURISY ROOT, a plant common in the United States, of which the root has medicinal repute, the infusion being used as a diaphoretic and expectorant.

**Butterine,** a substance prepared in imitation of butter, from animal or vegetable fats.

**Buttermilk,** the residue of cream after the butter has been removed by churning. It forms a wholesome and agreeable as well as a nourishing drink in hot weather. It possesses the slightly acid taste from the acidity developed in ripening the cream.

**Butternut,** the fruit of white walnut, an American tree, so called from the oil it contains. The tree bears a resemblance in its general appearance to the black walnut, but the wood is not so dark in color. The same name is given to the nut of South America, also known as suwarrow, or suwarra nut.

**Butter Tree,** a name of several trees yielding oily or fatty substances somewhat resembling butter.

**Button,** a small circular disk or knob of mother of pearl, horn, metal, or other material. Its chief use is to unite portions of a dress together. The ancient method of fastening dresses was by means of pins, brooches, buckles and tie-strings.

**Buttresses,** in architecture especially Gothic, projections on the outside of the walls of an edifice, extending from the bottom to the top, or nearly, and intended to give additional support to the walls and prevent them from spreading under the weight of the roof.

**Butyric Acid,** an acid obtained from butter; it also occurs in perspiration, cod liver oil, etc.

**Buyukdereh,** a town on the European shore of the Bosphorus, a few miles from Constantinople. It is famous for its scenery, and is a favorite residence of the Christian ambassadors.

**Buzzard,** the English name of the buteo, a genus of birds, and especially of three species. The turkey buzzard is more a carrion vulture than a raptorial bird. They are natives of our Southern States, where they are very useful as scavengers, and are so much appreciated in this regard that in most of the States they are protected by law. In consequence they grow quite tame, and in some places may be considered almost a domesticated fowl. They are about the size of a common turkey, and the species gets its name from a distant resemblance between the two. They are of a dirty black color, and are from 25 to 36 inches long, having an immense span of wing (proportionate), being remarkable for their powerful and graceful flight. Its nest is a mere hollow in the ground with a rampart of loose, dead branches around it. These birds may be seen by hundreds in one locality, hovering over and lighting upon the carcass of a dead animal. They are rarely found N. of Pennsylvania. After the terrible disaster in Galveston, Tex., in 1900, there was an entire disappearance from that city of these useful

birds. The brown buzzard, called also the glead, glede, glade, kite or puttock, feeds on small mammalia, birds, lizards, worms and insects. It makes its nest in trees and ledges of rock.

**Buzzard's Bay** a bay indenting the S. E. coast of Massachusetts; partly formed by the Elizabeth Islands. Its shores afford many summer resorts. Upon the bay New Bedford is situated.

**Byers, Samuel Hawkins Marshall,** an American historical and descriptive writer, born in 1838. During the Civil War he served in the Union army. He was taken prisoner; and while in prison in Columbia, S. C., wrote the famous song "Sherman's March to the Sea." He was consul at Zurich, Switzerland, from 1869 to 1884, and Consul-General to Italy in 1885.

**By-Law,** a private law, the local or subordinate law of a city, town, private corporation or other organization.

**Byng, John,** British admiral, born 1704, entered the navy in 1727, and served under his father, Admiral George Byng. He was sent to relieve Minorca, blockaded by a French fleet, but failed, it was thought, through hesitation in engaging the enemy. The public odium of the failure was such that the ministry allowed Byng, who was condemned by a court-martial, to be shot at Portsmouth, March 14, 1757.

**Byng, Julian.** 1st Baron Byng of Vimy. British soldier. Born, 1862. Had commanded 3rd Army in World War. Governor-General of Canada, 1921.

**Byron, George Gordon Noel, Lord Byron,** a great English poet, was born in Holles street, London, an. 22, 1788. He was the grandson of Admiral John Byron, only son, Captain John Byron, of the Guards, so notorious for his gallantries and reckless dissipation that he was known as 'Mad Jack Byron.' The injudicious indulgence of a fond mother in no way restrained the inclinations of a naturally wayward disposition, and Byron spent an unregulated youth until his eleventh year, when the death of his grand-uncle gave him the title and estates of the family. While a student in Cambridge, he essayed a collection of poems, "Hours of Idleness," which at best, a clever school-boy's production, was treated seriously by Brougham, who criticized it over severely in the Edinburgh "Review." The ire this roused in Byron led to a manifestation of his real powers as a poet, and his reply to this criticism, "English Bards" and "Scotch Reviewers," recalling with its wit and sarcasm the days of Pope, at once made him a man of mark. After travel abroad, his famous poems appeared in due succession, and he lived the life of a man about town in London, until his marriage in 1815 with Miss Millbanke. The truth is not yet known about this unhappy marriage, but within a year they parted, and a judicial separation was arranged. Be the cause, what it may, Byron was blamed by the public, and fell from the position of popular idol to that of the most despised man in England, which he left in 1816, never to return. The next few years were spent in dissipation and literary work, until 1823, when he joined the Greeks in their effort to throw off the yoke of Turkey. The reforms he accomplished in a short time in the poorly equipped and wretchedly disciplined army of the Greeks, proved him to possess skill as an organizer, but his physical condition did not fit him for the rigors of a soldier's life, and he died April 9, 1824, after a short illness brought on by exposure.

**Byzantine Empire,** also known as the Eastern Roman Empire, comprehended at first in Asia the country on this side of the Euphrates, the coasts of the Black Sea, and Asia Minor; in Africa, Egypt; and in Europe, all the countries from the Hellespont to the Adriatic and the Danube. This survived the Western Empire 1,000 years, and was even increased by the addition of Italy and the coasts of the Mediterranean. It commenced in 395, when Theodosius divided the Roman empire between his two sons Arcadius and Honorius, and ended with Constantine XI., who reigned from 1448 to 1453.



**C**, the third letter of the English alphabet and in others derived from the Latin. "In English," says Ben Jonson, "it might well have been spared, for it has no peculiar sound of its own." It has the simple power of k before a, o, u, and most of the consonants; and the power of s before e, i, y.

**Caaba,** or **Kaaba,** the Mohammedan temple at Mecca, especially a small oratory within, adored by Mohammedans as containing the black stone said to have been given by an angel to Abraham on the occasion of building the original caaba. The caaba is at the center of the mosque of Mecca, a building called by the Mohammedans El-Haram, i. e., "The Inviolable."

**Caaing Whale,** one of the Cetacea in the dolphin family, belonging to a genus common in all seas, and oftener stranded than any other whale. The total length varies from 16 to 24 feet, the maximum girth about 10 feet. The caaing whale is very gregarious, and vast shoals of 50 to 100 sometimes impetuously follow their leader ashore when alarmed and surrounded in a bay or fiord. Exciting scenes of this sort have been frequently witnessed on the Faroe Islands and elsewhere. It is recorded that 1,110 were killed in the winter of 1809–1810 at Hvalfiord, in Iceland. In temper the animals are mild compared with some of their allies. They feed chiefly on cuttle-fishes. Many names are given to these common cetaceans—e. g., pilot-whale, black-fish, social whale, grindhval, etc. The common name is derived from the Scotch word caa, meaning "to drive."

**Cab,** a covered public carriage having two or four wheels, and drawn by one horse. In a hansom cab the driver's seat is behind, not in front. Also the covered part at the rear end of a locomotive which protects the engineer and fireman, and shields the levers, etc.

**Cabal,** in English history applied to the ministry under Charles II., which consisted of five men famous for their intrigues — Clifford, Ashley, Buckingham, Arlington, and Lauderdale, whose initial letters form this word. The use of this word to signify a body of intriguers was not, however, derived from this circumstance, as some have supposed, for the word cabale, derived from cabala, was used in that sense in French before this time.

**Cabala,** or **Cabbala,** (that is, reception), a word used by the Jews to denote the traditions of their ancestors regarding the interpretation of the Scriptures.

**Cabañas,** a town in the Province of Pinar del Rio, Cuba; 35 miles S. W. of Havana; is in a rich sugar-cane section; pop. (1907) 11,552.

**Cabanel, Alexandre,** a French artist, born 1823; died 1889. He was famous for his portraits, one of which, Miss Catherine Wolfe, in the Metropolitan Museum, New York, is a fair specimen of his work. He also painted imaginative subjects.

**Cabbage,** a plant in general cultivation for culinary purposes, and for feeding cattle. In the Northern parts of the United States, cabbages are sown about September, kept under glass or frames during winter, and planted out in spring.

**Cabbage Flea,** the name sometimes given to a small leaping beetle, the larvæ of which destroy seedling

cabbages, as those of an allied species do young turnips.

**Cabbage Moth,** a species of moth the caterpillar of which feeds on cabbage and turnip leaves, and is sometimes very destructive.

**Cabbage Rose,** a species of rose of many varieties, supposed to have been cultivated from ancient times, and eminently fitted for the manufacture of rose water and attar from its fragrance. It has a large, rounded, and compact flower.

**Cabbage Tree,** the English name for the palm genus Areca, and specially for the cabbage palm of the West Indies. It is so called because the bud at the top of its stem is like a cabbage, and the inner leaves which form this bud are eaten like the vegetable now mentioned, though the removal of its bud for the sake of these leaves is the destruction of the magnificent tree.

**Cabeiri,** sacred priests or deified heroes, venerated by the ancients as the authors of religion and the founders of the human race.

**Cabell, William Lewis,** an American lawyer; born in Danville, Va., Jan. 1, 1827; was graduated at the United States Military Academy in 1850. During the Civil War he served in the Confederate army; rose to the rank of Brigadier-General; was captured in Kansas in 1864, and held a prisoner of war till April 28, 1865. After the war he practised law in Fort Smith, Ark., and after 1872 in Dallas, Tex., of which he was mayor four times; died Feb. 22, 1911.

**Cabell, James Lawrence,** an American sanitarian, born in Nelson county, Va., Aug. 26, 1813. He was graduated at the University of Virginia in 1833, where he later filled the chair of anatomy. During the Civil War he had charge of military hospitals for the Confederate Government. He devised measures to check the yellow fever epidemic at Memphis and was president of the National Board of Health from 1879 till his death, in Overton, Va., Aug. 13, 1889.

**Cabet, Etienne,** a French communist, born in Dijon, Jan. 2, 1788, and educated for the bar, but turned his attention to literature and politics. Cabet sent a French colony to the Red river in Texas, but the colonists who went out in 1848 found Texas anything but a Utopia. Their ill fortune did not deter Cabet from embarking at the head of a second band of colonists. On his arrival he learned that the Mormons had just been expelled from Nauvoo, Ill., and that their city was left deserted. The Icarians established themselves there in 1850. Cabet's efforts, however, were not successful. He was finally obliged to leave Nauvoo and retire to St. Louis, where he died Nov. 9, 1856.

**Cabeza, de Vaca, Alvar Nunez,** a Spanish explorer, born about 1507. He was second in command in the ill-fated expedition of Panfilo de Narvaez to Florida in 1528. After the loss of their commander, Cabeza de Vaca, with a few survivors, landed W. of the mouth of the Mississippi, and after eight years of wandering and captivity among the Indians, he reached a Spanish colony on the Pacific with three companions. He returned to Spain, and in 1540 was appointed Governor of La Plata. He died about 1564.

**Cabinet,** a deliberative committee of the executive authority, consisting of the principal members of the Government. The cabinet of the President of the United States is composed of the heads of the several administrative departments of the Government. They are: 1. The Secretary of State, 2. The Secretary of the Treasury. 3. The Secretary of War. 4. The Secretary of the Navy. 5. The Secretary of the Interior. 6. The Postmaster-General. 7. The Attorney-General. 8. The Secretary of Agriculture. 9. The Secretary of Commerce. 10. The Secretary of Labor. They are appointed to office by the President, but must be confirmed by the Senate, and they generally hold office until their successors are appointed and confirmed. Contrary to foreign systems, the United States cabinet ministers do not have seats in Congress; there is no premier, although the Secretary of State virtually holds that position as leading cabinet officer. The salary of the members of the cabinet is $15,000 annually. In 1917 an enlargement of the cabinet was proposed to better handle war measures.

**Cable** is either a large rope or a chain of iron links. Rope cables are made of the best hemp or of wire, twisted into a mass of great compactness and strength. The circumference of hemp rope varies from about 3 inches to 26. A certain number of yarns are laid up left-handed to form a strand; three strands laid up right-handed make a hawser, and three hawsers laid up left-handed make a cable. The strength of a hemp cable of 18 inches circumference is about 60 tons, and for other dimensions the strength is taken to vary according to the cube of the diameter. Wire rope has within recent years largely taken the place of hemp for tow-line and hawsers on board ship.

**Cable, George Washington,** an American novelist; born in New Orleans, La., Oct. 12, 1844; received a common school education; entered the volunteer service of the Confederate army in 1863 and served till the close of the war; when he obtained employment in a mercantile house; and was on the editorial staff of the New Orleans "Picayune" in 1865–1879. His sketches of creole life in "Scribner's Monthly" proved so successful that in 1879 he turned his entire attention to literature. He has contributed numerous sketches to newspapers and magazines; and published various books.

**Cabot, George,** an American statesman; born in Salem, Mass., Dec. 3, 1751; educated at Harvard College. In 1791 he became United States Senator for Massachusetts, and proved a steadfast friend of the Washington administration. He died in Boston, April 18, 1823.

**Cabot, John,** (It. GIOVANNI CABOTO), a Venetian pilot, the discoverer of the mainland of North America, settled as a merchant, probably as early as 1472, in Bristol, England, where he is supposed to have died about 1498. Under letters-patent from Henry VII., dated March 5, 1496, he set sail from Bristol in 1497, with two ships, accompanied by Lewis, Sebastian, and Sancto, his sons, and on June 24th sighted Cape Breton Island and Nova Scotia. Letters-patent were granted Feb. 3, 1498, for a second expedition, but whether any voyages were made under these is doubtful. However, they form the last authentic record of his career.

The same uncertainty exists as to the birthplace of his second son, SEBASTIAN, who, it now appears most probable, was born in Bristol in 1474. Sebastian's name is associated with that of his father in the charter of 1496, and in 1499 he appears to have sailed with two ships in search of a Northwest Passage, and followed the American coast from 60° to 30° N. lat.; but it has been considered doubtful whether this voyage also should not be assigned to his father. In 1519 Cabot returned to Spain from England, and was appointed pilot-major of the kingdom by Charles V., for whom, in 1526, he commanded an expedition which examined the coast of Brazil and La Plata, where he endeavored to plant colonies. The attempt ending in failure, he was imprisoned for a year in 1530, and banished for two years to Oran, in Africa. He seems to have died in London in 1557.

**Cabral, Pedro Alvarez,** the discoverer (or second discoverer) of Brazil, a Portuguese, born about 1460. In 1500 he received command of a fleet bound for the East Indies, and sailed from Lisbon, but having taken a course too far to the West he was carried by the South American current to the coast of Brazil, of which he took possession in the name of Portugal. He died about 1526.

**Cacao,** or **Cocoa,** the chocolate tree, and also the powder and beverage made with it obtained from the fruit of this tree. The tree is 16 to 18 feet high, a native of tropical America, and much cultivated in the tropics of both hemispheres, especially in the West India Islands, Central and South America. Its fruit is contained in pointed, oval, ribbed pods 6 to 10 inches long, each inclosing 50 to 100 seeds in a white, sweetish pulp. The term cocoa is a corruption of cacao, but is more commonly used in commerce: cocoa nuts, however, are obtained from an entirely different tree.

**Caceres, Andres Avelino,** a Peruvian military officer and statesman; born in Ayacucho, Nov. 11, 1838. The imprisonment of Calderon, the President, made him acting President of Peru. Afterward, by a general

election, he was inaugurated President (1886). On the death of President Bermudez in 1894, General Caceres was proclaimed dictator, and, May 10th, was elected President. In 1895 he was overthrown in a revolution by ex-Dictator Pierola. He died Nov. 19, 1911.



CACAO PLANT.

**Cachalot,** the sperm of spermaceti whale. The male is from 46 to 60, or even 70 feet long; the female from 30 to 35. They are gregarious, and go in what the fishermen call schools, sometimes with as many as 500 or 600 individuals. The cachalot inhabits the northern seas, but straggles through a great part of the ocean.

**Cachao.** See HANOI.

**Cachar,** a district of Assam, India; area, 3,750 square miles. The inhabitants (313,900) are mainly engaged in rice and tea cultivation.

**Cache,** a hole in the ground for hiding and preserving provisions which it is inconvenient to carry; used by settlers in the Western States and Arctic explorers.

**Cachet, Lettre de,** a name given especially to letters proceeding from and signed by the kings of France, and countersigned by a secretary of state.

**Cacholong,** a beautiful mineral, regarded as a variety of semi-opal. It is sometimes called pearl opal, or mother-of-pearl opal. It is generally of a milk-white color, rarely with a yellowish or reddish tinge.

**Cactaceæ** (named from the cactus), Indian figs. About 800 are known. The fruit of some species is refreshing and agreeable, that of others insipid.

**Cactus,** an old and extensive genus of Linnæus. The plant, though now seen all over India, undoubtedly came at first from a foreign and a distant country. It grows very extensively in the western and southwestern part of the United States and all over tropical America, usually on arid lands. Once rooted in a place, it spreads so widely abroad that it is difficult to get it out again, and it is believed to impoverish the land of which it takes possession.

**Caddoan Indians,** a family of North American Indians, comprising the Arikari tribe in North Dakota; the four Pawnee villages, Grand, Tapage, Republican, and Skidi, in the Indian Territory; and the Caddo, Kichai, Wichita, and other tribes, formerly in Louisiana, Texas, and Arkansas.

**Cade, Jack,** the leader of a popular insurrection in the reign of Henry VI. of England. He collected 20,000 followers, chiefly Kentish men, who, in June, 1450, flocked to his standard, that they might claim redress for the grievances so widely felt. Cade defeated a detachment of the royal forces at Seven Oaks, and obtained possession of London, the King having retired to Kenilworth; but having put Lord Say cruelly to death, and laid aside the appearance of moderation

which he had at first assumed, the citizens rose, gave his followers battle, dispersed them, and put Cade to death, 1450.

**Cadence,** a close, the device which in music answers the use of stops in language.

**Cadenza,** a flourish of indefinite form introduced upon a bass note immediately preceding a close.

**Cadet,** a younger or youngest son; a junior male member of a noble family. Also the name or title given to a young man in training for the rank of an officer in the army or navy, or in a military school. In the United States cadets are trained for military life at West Point, N. Y., and for naval life at Annapolis, Md.

**Cadi,** or **Kadi,** in Arabic, a judge or jurist. Among the Turks cadi signifies an inferior judge, in distinction from the mollah, or superior judge. They belong to the higher priesthood, as the Turks derive their law from their prophet.

**Cadiz,** Spain, an important seaport city, capital of a province, which forms a part of Andalusia. It reached its highest prosperity after the discovery of America, when it became the depot of all the commerce with the New World; declined greatly as a commercial city after the emancipation of the Spanish colonies in South America; but again revived, owing partly to the extension of the Spanish railway system, and partly to the establishment of lines of steamers.

Cadiz is one of the most ancient towns in Europe, having been built by the Phœnicians, under the name of Gaddir ("fortress"), about 1100 B. C. It afterwards passed into the hands of the Carthaginians, from whom it was captured by the Romans, who named it Gades, and under them it soon became a city of vast wealth and importance. Occupied afterward by the Goths and Moors, it was taken by the Spaniards in 1262.

In 1898 it was the rendezvous of the vessels of the Spanish navy which, for a time during the war between the United States and Spain, were expected to make a demonstration against some of the principal American cities on the Atlantic seaboard. Pop. (1921) 69,000.

**Cadorna, Luigi,** an italian military officer, born in Pallawza, Sept. 4, 1850, of a family distinguished in the military history of Italy; was graduated at the Turin Military Academy in 1868 and afterward at the School of War; was for several years attached to the General Staff; was appointed its Chief when Italy entered the great war; and so distinguished himself in the operations against Austria that he was called the Joffre of the Italian army. See APPENDIX: *World War.*

**Caduceus,** Mercury's rod; a winged rod entwisted by two serpents borne by Mercury as an ensign of quality and office.

**Cadwalader, George,** an American lawyer and soldier; born in Philadelphia, in 1804. He practiced law till 1846; was made brigadier-general of volunteers; and won distinction at Chapultepec. He resumed his law practice till 1861; became major-general of State volunteers; was placed in command at Baltimore; accompanied Patterson's expedition to Winchester (1861); and, as one of a military board, directed the United States army operations. He died in Philadelphia, Pa., Feb. 3, 1879.

**Cadwalader, John,** an American soldier, born in Philadelphia, Jan. 10, 1742. At the outbreak of the Revolution he was placed in command of a battalion and soon became brigadier-general. He fought at Trenton, Brandywine, Germantown, and Monmouth. He died in Shrewsbury, Pa., Feb. 10, 1786.

**Caen,** a town of France, in Normandy, chief place in the department of Calvados, 125 miles N. W. of Paris, and about 9 miles from the mouth of the Orne. Two remarkable churches are St. Etienne or Church of the Abbaye-aux-Hommes, built by William the Conqueror, who was buried in it, and La Ste. Trinité or Church of the Abbaye-aux-Dames, founded by the Conqueror's wife. Pop. (1921) 44,000.

**Caerleon,** a town of England on the Usk, 18 miles S. of Monmouth. Many fine Roman remains have been, and are still, found here.

**Caesar, Caius Julius,** son of a family of the Julian gens, claiming

descent from Iulus, son of Æneas. The origin of the name is uncertain.

**Cæsar, Caius Julius,** son of a Roman prætor of the same name, was born July 12, 100 B. C., according to Mommsen in 102 B. C. One of the greatest, if not the greatest of military commanders, he was likewise peerless in his time as politician and statesman. He overcame all his enemies in the field, and was the dictator, and virtually the first emperor of Rome. During the year 46 B. C. he conferred a benefit on Rome and on the world by the reformation of the calendar, which had been greatly abused by the pontifical college for political purposes. After quelling an insurrection which broke out in Spain, where Pompey's sons, Cneius and Sextus, had collected an army, he received the title of "Father of his Country," and also of imperator, was made dictator and præfectus morum for life, and consul for 10 years; his person was declared sacred, and even divine; he obtained a body-guard of knights and senators; his statue was placed in the temples; his portrait was struck on coins; the month Quintilis was called Julius in his honor, and on all public occasions he was permitted to wear the triumphal robe. He proposed to make a digest of the whole Roman law for public use, to found libraries for the same purpose, to drain the Pontine Marshes, to enlarge the harbor of Ostia, to dig a canal through the Isthmus of Corinth, and to quell the inroads of the barbarians on the E. frontiers; but in the midst of these vast designs he was cut off by assassination on the Ides (15th) of March, 44 B. C.

**Cæsarea,** the ancient name of many cities, such as: (1) Cæsarea Philippi in Palestine, N. of the Sea of Galilee, rebuilt by Philip, tetrarch of Galilee, son of Herod the Great. (2) Cæsarea, on the shores of the Mediterranean, about 55 miles N. W. from Jerusalem, enlarged and beautified by Herod the Great, and named in honor of Cæsar Augustus; the place where St. Paul was imprisoned two years (Acts xxiii–xxv). (3) The capital of Cappadocia, in Asia Minor.

**Cæsarian Operation,** the most serious operation in midwifery, and only resorted to to save life.

**Cæsarion,** son of Julius Cæsar and Cleopatra, put to death by order of Augustus.

**Cæsars, The Era of,** also known as the Spanish Era, a period of time reckoned from Jan. 1, 38 B. C., being the year following the conquest of Spain by Augustus. It was much used in Africa, Spain, and the S. of France; but by a synod held in 1180 its use was abolished in all the churches dependent on Barcelona. Pedro IV. of Arragon abolished the use of it in his dominions in 1350. John of Castile did the same in 1383. It was used in Portugal till 1415, if not till 1422. The months and days of this era are identical with the Julian calendar, and to turn the time into that of our era, subtract 38 from the year; but if before the Christian era, subtract 39.

**Caesium,** an element discovered by Bunsen in 1860. The pure metal is rare; it is similar to potassium, and has such an affinity for oxygen, it will burst into flame when exposed to the air.

**Caffeine, Theine,** or **Guaranine,** an alkaloid found in tea, coffee and other plants used as beverages. About 1 per cent. is found in coffee, and from 2 to 4 per cent. in tea. It has no nutritive value. In small doses as in a cup of tea or coffee it helps the circulation. In large doses, or after prolonged drinking of tea or coffee, it paralyses the heart's action. It is used in medicine for various nervous ailments. It is the element that makes tea and coffee drinking so injurious for some persons.

**Cagayan,** an island of the Philippines; the largest of six small islets, known as the Cagayan-Sulu group. It is 5 miles wide and 8 miles long. Pop. (Est.) 3,200. There are mountains attaining a height of 1,100 feet. The chief products are tobacco and sugar. There are pearl and shell fisheries. Cagayan was sold by Spain to the United States, with Sibutu, in 1900, upon payment of $100,000, having been inadvertently excluded from the terms of the treaty of peace.

**Cagliari, Paul,** also known under the name of Paul Veronese, a painter of Verona, born 1528; died 1588. See VERONESE, PAUL.

**Cagliostro, Alessandro, Count of,** (real name GIUSEPPE BALSAMO), a celebrated charlatan; born in Palermo, Italy, June 8, 1743. The discovery of the philosopher's stone, the preparation of a precious elixir vitæ, etc., were the pretenses by means of which he extracted considerable sums from credulous people. Died in 1795.

**Caguas,** a town in the department of Guayama, Porto Rico; on the main road between Ponce and San Juan; 18 miles S. E. of the latter; is in a section containing hot springs and valuable quarries of marble and limestone. Pop. (Est.) 12,000.

**Caiaphas,** a Jew, was the high-priest at the time when the crucifixion took place. He was deposed A. D. 35, and Jonathan, the son of Annas, appointed in his stead.

**Caicos,** a group of islands belonging geographically to the Bahamas, but annexed in 1874 to Jamaica. The North, West, East, Grand, and other Caicos, have, together with Turk's Islands, an area of 223 square miles. Pop. (Est.) 6,000. Salt and sponges are their chief products.

**Caillie, Réné or Auguste,** a French traveler; born in Poitou, France, Sept. 19, 1799. Having gone to Senegal, he learned about 1826 that the Geographical Society of Paris had offered a premium of 10,000 francs to the first traveler who should reach Timbuctoo. He started from Kakondy in Sierra Leone, April 18, 1827, and after some delay caused by illness, reached the mysterious city, April 20, 1828. Caillie died near Paris, May 7, 1839.

**Cain,** the first-born of the human race, and the first murderer. He became an outcast, traveling to the E. of Eden, where he built a city and had a son, named Enoch. The Jewish tradition is, that he was slain by Enoch.

**Caine, Thomas Henry Hall,** an English novelist and dramatist; born in Runcorn, Cheshire, Eng., May 14, 1853. His novels, which are striking in their pictures of human motives and passions, are read throughout the world. Knighted in 1918.

**Cairn,** a round or conical heap of stones erected as a sepulchral monument. They are found on the hills of England, Wales, and Scotland, and some have assigned to them a peculiar character, as receptacles for the bodies of criminals burnt in the wicker images of the Druids, etc.

**Cairngorm Stone,** a mineral; a variety of quartz of a smoky yellow to smoky brown, and often transparent, but varying to brownish-black, then nearly opaque in thick crystals.

**Cairo,** (Arab. Musr el Kaherah "the victorious capital"), the capital of modern Egypt, situated in a sandy plain between the right bank of the Nile and the ridge of Mokattam, near the point of the delta of the Nile.

The remarkable edifices of Cairo comprise many of the finest remains of Arabian architecture, all dating from the time of the ancient sultans of Egypt. Among these, besides mosques, chapels, and Coptic churches, are several of the ancient gates, an aqueduct for conveying water from the Nile to the citadel, the works of the citadel, and the palace and well of Joseph. At Old Cairo are the seven towers, still called the "Granary of Joseph," and serving their ancient purpose. In the island of Rhoda is the celebrated Nilometer. On the S., outside the walls, are the tombs of the Mamelukes, and on the N. E. the obelisk of Heliopolis. There are also a magnetic observatory, and the College of El Ahzar, the principal university of the Mohammedan world. Pop. (1917) 790,939.

**Cairo,** city, port of delivery, and capital of Alexander county, Ill.; at junction of the Mississippi and Ohio rivers; on the Illinois Central and other railroads; 150 miles S. E. of St. Louis. It is the trade center of a large farming section; has passenger and freight steamer connections with all important river ports; and has a $3,000,000 steel railroad bridge across the Ohio. Pop. (1920) 15,203.

**Caisson,** a military term, denoting a wooden chest to hold ammunition; formerly applied to the ammunition-wagon itself. In engineering a caisson is a wooden case or frame sunk in the beds of rivers, etc., during the laying of the foundations of a bridge.

**Cajabamba,** former name of Riobamba, the capital of the province of Chimborazo, in Ecuador, 102 miles S. of Quito, on the arid plateau

of Topi, at an elevation of 9,480 feet. Pop. 16,000. The original town of RIOBAMBA, founded in 1533, was in 1797 overwhelmed by an earthquake in which 30,000 lives were lost. Pop. 1921 (Est.) 22,000.

**Cajamarca,** a department in the N. W. of Peru, between the W. chain of the Andes and the Amazon. A railway connects it with the Pacific, and there is a large farming and cattle-raising industry. Area, 12,538 square miles; pop. (Est.) 450,000. Capital, Cajamarca; pop. 12,000.

**Calabar,** a maritime district of West Africa on the Bight of Biafra, intersected by two rivers, called respectively Old and New Calabar, under British protection. Duke Town and Creek Town, the chief towns on Old Calabar river, are stations of British missionaries.

**Calabash,** a tree about 30 feet high, found in some places wild, in others cultivated, in the West Indies and other tropical parts of America. The fruit of the tree is inclosed in a shell used by the natives of the Caribbee Islands for drinking cups, pots, musical instruments, and other domestic utensils.

**Calabash Nutmeg,** a tree of the order Anonaceæ, introduced into Jamaica probably from Western Africa. The fruit resembles small calabashes; hence the name. It is called also American nutmeg, or Jamaica nutmeg.

**Calabria,** a compartmento of Italy (the "toe" of the boot"), between the Ionian and Tyrrhenian seas; divided into the provinces of Cosenza, Reggio, and Catanzaro; area 5,819 square miles; pop. 1,471,780. On Dec. 28, 1908, Calabria and Sicily were visited by an earthquake and tidal wave, causing an appalling loss.

**Caladium,** a genus of endogenous plants, the typical one of the family caladieæ. They are cultivated in greenhouses here, and flourish in warmer parts of the world. The leaves of the caladium are boiled and eaten in the West Indies.

**Calais,** a fortified seaport town of France, in the department of Pas-de-Calais, on the Strait of, and 25 miles S. E. of Dover, and distant 184 miles by rail from Paris. The Old Town or Calais proper has a citadel, and was formerly surrounded by fortifications; but the modern suburb of St. Pierre les Calais having been amalgamated with Calais proper, both are now surrounded with forts and other works, to which morasses lend additional strength. In 1347 Calais was taken by Edward III. of England, after a siege of 11 months. In 1558 it was retaken by the Duke of Guise, being the last relic of the French dominions of the Plantagenets, which at one time comprehended the half of France. Pop. (1921) 74,516.

**Calamianes,** an island group of the Philippine Archipelago. Their surface is mountainous, and richly wooded, producing rice, wool, cacao, and the bird's nests used for food. Busuanga, Calamian and Linacapan are the largest of the islands. Area about 340 square miles; pop. over 20,000.



CALADIUM.

**Calamus,** the reed pen which the ancients used in writing, made of the stem of a reed growing in marshy places, of which the best were obtained from Egypt. The stem was first softened, then dried, and cut and split with a knife, as quill pens are made. To this day the Orientals generally write with a reed.

**Calamus,** the traditional name of the sweet flag, which is no doubt the "calamus aromaticus" of Roman authors, and probably the sweet calamus and sweet cane of Scripture.

**Calas, Jean,** a French victim of fanaticism; born in 1698. He was a Protestant, and was engaged as a merchant in Toulouse, when his eldest son committed suicide; and as he was known to be attached to the Roman Catholic faith, a cry arose that he had on that account been murdered by his father. Jean Calas and his whole family were arrested, and a prosecution instituted against him, in support of which numerous witnesses came forward. The parliament of Toulouse condemned him, by eight voices against five, to be tortured and then broken on the wheel, which sentence was carried out in 1762, his property being also confiscated. Voltaire became acquainted with his family, and procured a revision of the trial, when Calas was declared innocent, and his widow pensioned.

**Calatafimi,** a town of Sicily near its W. end, with a ruined Saracenic castle. Near it is the scene of Garibaldi's first victory over the Neapolitans in 1860.

**Calatrava la Viega,** a ruined city of Spain, on the Guadiana, 12 miles N. E. of Ciudad Real. Its defence against the Moors, undertaken by Raymond, abbot of Fitero, and Diego Velasquez in 1158, after it had been abandoned by the Templars, is famous on account of its having originated the Order of the Knights of Calatrava, which was instituted at Calatrava in 1158, by King Sancho III. of Castile, and was at several periods associated with the Cistercian monks. Their almost uniform success against the Moors gave rise to rashness, and in 1197 they were defeated and nearly exterminated, the survivors transferring the seat to the castle of Salvatierra.

**Calaveras Grove,** Cal., one of the famous groves of big trees, and the nearest to San Francisco, measures 1,100 yards by 70 yards, and contains about 100 trees. It is State property.

**Calcareous,** a term applied to substances partaking of the nature of lime, or containing quantities of lime. Thus we speak of calcareous waters, calcareous rocks, calcareous soils. Calcareous spar (crystallized carbonate of lime) is found crystallized in more than 700 different forms, all having for their primitive form an obtuse rhomboid. The rarest and most beautiful crystals are found in Derbyshire, England.

**Calceolaria,** a well known and beautiful genus of plants. The species, which are numerous, come from South America, chiefly from the western slope or side of the Andes. The greater number have yellow flowers, others are purple, while in a few the two colors are intermingled. Various calceolarias are cultivated in the United States.

**Calciferous Epoch,** one of the subordinate divisions of the Lower Silurian System of North America. The division is characterized by the presence of calcareous sandstones and limestones.

**Calcination,** the operation of expelling from a substance by heat, either water or volatile water combined with it. Thus, the process of burning lime, to expel the carbonic acid, is one of calcination.

**Calcite, Calcareous Spar,** or **Calc-spar,** the name usually given by mineralogists to carbonate of lime, rhombohedral in its crystallization. It differs from aragonite only in crystallization. Calcite is one of the commonest minerals.

**Calcium,** a dyad metallic element. Calcium is a yellowish white, ductile, malleable metal, which oxidizes in damp air; it decomposes water, and dissolves easily in dilute acids.

**Calcium Carbide,** a chemical compound of calcium and carbon. It is a hard, bluish-black, clear crystalline body, and is impervious to light, and insoluble in all known solvents. It is used generally for the production of acetylene and the reduction of iron. See ACETYLENE.

**Calcium Light,** a brilliant light produced by directing the flame of an oxy-hydrogen blow-pipe against a block of compressed quicklime. It has been used on the stage for many years, and by the aid of colored glasses very charming effects are produced

More recently it has been employed in lanterns for projecting photographic and biographic pictures on a screen.

**Calc-sinter,** a carbonate of lime, the substance which forms the stalactites and stalagmites that beautify many caves.

**Calculating Machine,** a piece of mechanism for assisting the human intellect in the performance of arithmetical operations. Among modern calculating machines are the slide-rule and bank and cash registers.

**Calculus,** the medical term for what is popularly known as stone. Calculi vary in size from a pin's head to a pigeon's egg, and even larger, and weigh from a few grains to several ounces. They derive their special name and character as well from the organs of the body in which they are found as from the constituents of which they are composed.

**Calculus, The Infinitesimal,** or **Transcendental Analysis,** a branch of mathematical science.

**Calcutta,** (literally, the ghaut or landing place of Kali, from a famous shrine of this goddess), capital of British India, and of the presidency and province of Bengal; situated on the left bank of the Hooghly, a branch of the Ganges, about 80 miles from the Bay of Bengal. The Hooghly is navigable up to the city for vessels of 4,000 tons or drawing 26 feet. The port of Calcutta extends for about 10 miles along the river, and is under the management of a body of commissioners. Opposite the city it is crossed by a great pontoon bridge, which gives communication with Howrah for vehicles and foot-passengers, and can be opened at one point to let vessels pass up or down. Beside the accommodation for shipping furnished by the river, there are also several docks. The trade is very large, Calcutta being the commercial center of India. There is a very extensive inland trade by the Ganges and its connections, as also by railways (the chief of which start from Howrah), while almost the whole foreign trade of this part of India is monopolized by Calcutta. In 1773 Calcutta became the seat of British government for the whole of India. Since then the history of Calcutta has been an almost unbroken record of progress and prosperity. Pop. in 1921, with suburbs, 1,327,547; city founded in 1686.

**Caldecott, Randolph,** an English artist; born in Chester, England, March 22, 1846. He will chiefly be remembered by the admirable "Caldecott's Picture-books," which began in 1878, with "John Gilpin" and "The House that Jack Built." After vain attempts to restore his health by trips abroad he died in St. Augustine, Fla., Feb. 12, 1886.

**Calderon, Francisco Garcia,** a Peruvian jurist and statesman; born in Arequipa in 1834. He became a member of Congress in 1867; accepted the treasury portfolio in 1868, and, after the Chilean occupation in 1883, became the head of the provisional government. Being captured by the enemy, he was retained as a prisoner at Valparaiso, and, although his election as President was confirmed, he was unable to take the office. After his release he figured prominently in public affairs. He died Sept. 21, 1905.

**Caldwell, Charles Henry Bromedge,** an American naval officer; born in Hingham, Mass., June 11, 1828. In the Civil War he commanded the "Itasca," taking part in the bombardment of Forts Jackson and St. Philip and the Chalmette batteries, and in the capture of New Orleans. He was promoted commodore in 1874. He died in Boston, Mass., Nov. 30, 1877.

**Caldwell, James,** an American patriot; born in Charlotte county, Va., in 1734. During the growing antagonism between the Colonies and Great Britain, he warmly took the side of the former, and when hostilities began, became chaplain to the New Jersey brigade. He was shot by a sentinel, at the Point, New York, Nov. 24, 1781, and buried at Elizabethtown, N. J., where a costly marble monument covers the remains of the "soldier-parson."

**Caledonia** and **Caledonians,** the names by which the N. portions of Scotland and its inhabitants first became known to the Romans.

**Caledonia, New,** a French island in the Pacific Ocean; lying some 700 miles E. of Australia. Its length N.

W. to S. E. is 250 miles, the breadth being about 35 miles. It is surrounded by coral reefs, at a distance of from 5 to 18 miles.

New Caledonia was taken possession of by the French on Sept. 24, 1853, and a small colony was formed there. During the time of the second empire it was employed as a place of banishment for criminals, a purpose which it still serves. In 1872, by a decree of the National Assembly at Versailles, New Caledonia was fixed on as the place to which the condemned Communists should be transported. The number of the condemned amounted to more than 3,000. In 1921 the total population was about 55,000. While the penal colony is still maintained, no new convicts have been sent there since 1896. Capital pop. (1921) 10,053.

**Calendar,** a systematic division of time into years, months, weeks, and days, or a register of these or similar divisions. The present calendar was adopted in the 16th century, the Julian, or old Roman calendar having become grossly erroneous.

Luigi Lilio Ghiraldi, frequently called Aloysius Lilius, a physician of Verona, projected a plan for amending the calendar, which, after his death, was presented by his brother to Pope Gregory XIII. To carry it into execution, the Pope assembled a number of prelates and learned men. In 1577 the proposed change was adopted by all the Catholic princes; and in 1582 Gregory issued a brief abolishing the Julian calendar in all Catholic countries, and introducing in its stead the one now in use, under the name of the Gregorian or reformed calendar, or the "new style," as the other was now called the "old style." The amendment ordered was this: Ten days were to be dropped after the 4th of October, 1582, and the 15th was reckoned immediately after the 4th. Every 100th year, which by the old style was to have been a leap year, was now to be a common year, the fourth excepted; that is, 1600 was to remain a leap year, but 1700, 1800, 1900 to be of the common length and 2000 a leap year again. In this calendar the length of the solar year was taken to be 365 days, 5 hours, 49 minutes, and 12 seconds, the difference between which and subsequent observations is immaterial. In Spain, Portugal, and the greater part of Italy, the amendment was introduced according to the Pope's instructions. In France the 10 days were dropped in December, the 10th being called the 20th. In Catholic Switzerland, Germany, and the Netherlands, the change was introduced in the following year; in Poland in 1586, in Hungary in 1587. Protestant Germany, Holland, and Denmark accepted it in 1700, and Switzerland in 1701. In England the Gregorian calendar was adopted in 1752. The 1st of January was then adopted as the beginning of the legal year, and it was customary for some time to give two dates for the period intervening between January 1 and March 25, that of the old and that of the new year, as January 175 2/3. Russia alone retains the old style, which differs 12 days from the new.

**Calends,** the first day of the month among the Romans.

**Calgary,** a city in the Province of Alberta, Canada; at junction of the Bow and Elbow rivers and on the Canadian Pacific railway; 642 miles E. of Vancouver, 840 miles W. of Winnipeg, and near the foothills of the Rocky Mountains. It is the See of an Anglican and a Roman Catholic bishop; contains Western Canada College, Provincial Normal School, St. Hilda's Ladies' College, Convent of the Sacred Heart, General and Holy Cross hospitals, and a sanitarium for consumptives; is in an unusually rich wheat-growing and mixed-farming region; has large live-stock interests; and has an annual wholesale trade exceeding many millions. Pop. (1921) 63,305.

**Calhoun, John Caldwell,** an American statesman; born in Abbeville district, S. C., March 18, 1782; graduated with distinction at Yale College in 1804, and was admitted to the South Carolina bar in 1807. After serving for two sessions in the Legislature of his native State, he was elected to Congress in 1811. From that time until his death he was seldom absent from Washington, being nearly the whole time in the public service, either in Congress or in the Cabinet. When he first entered Congress, the difficulties with England were fast approaching actual hostili-

ties, and he immediately took part with that section of the dominant party, whose object it was to drive the still reluctant administration into a declaration of war. They succeeded, and, as a member of the Committee on Foreign Relations, he reported a bill for declaring war, which was passed in June, 1812. When Monroe formed his administration in 1817, Calhoun became Secretary of War, a post which he filled with great ability for seven years.

In 1824, he was chosen Vice-President of the United States under John Q. Adams, and again, in 1828, under General Jackson. With the latter he did not long continue on amicable political relations, but entered into fierce opposition, when the President, and a majority of Congress, determined to enforce submission to the law of 1828, imposing a heavy protective tariff. It was at this period that he broached his famous "Nullification Doctrine," which is substantially, that the United States is not a union of the people, but a league or compact between sovereign States, any of which has a right to judge when the compact is broken, and to pronounce any law to be null and void which violates its conditions. In short, Calhoun was the first great advocate of the doctrine of Secession. From this time forward, for the last 17 years of his public service, he hardly aspired to be considered a national statesman acting for the whole country; he was content, even proud, to be viewed only as a Southern statesman. Hence his advocacy of the extreme doctrine of State-Rights; his censure of the Missouri Compromise, passed 13 years before, when he was himself in the Cabinet; his support of all measures tending to the extension of slave-holding territory; and, finally, his proposal to amend the Constitution by abolishing the single office of the presidency, and creating two presidents, one for the North, and the other for the South, to be in office at the same time. The place in which he advocated these doctrines was the floor of the United States Senate, where he continued for the rest of his life, except for a short time at the close of Mr. Tyler's administration, when he accepted the office of Secretary of State. He died in Washington, March 31, 1850.

**Calico Printing,** the art of producing on calico or cotton cloth variegated patterns by the process of printing, the object as a rule being to have the colors composing the designs as fast as possible to washing and other influences.

**Calicut,** a seaport of India, in the presidency of Madras, on the Malabar coast, which was ceded to the British in 1792. It was the first port in India visited by Europeans. It manufactures cotton cloth, to which it has given the name calico. Pop. (1921) 81,000.

**California,** a State in the Pacific Division of the North American Union, bounded by Oregon, Nevada, Arizona, Lower California, and the Pacific Ocean; land area, 158,297 square miles; admitted to the Union Sept. 9, 1850; number of counties, 58; pop. (1920) 3,426,861; capital, Sacramento.

The surface of the State is very mountainous, being traversed by two ranges extending in a N. W. and S. E. direction. The Coast Range, consisting of a number of broken ridges, has an average width at the base of 65 miles, and varies from 1,000 to 8,000 feet in height. The highest peak is Mt. Ripley, 7,500 feet. The Sierra Nevada Mountains join the Coast Range and extend along the E. border of the State for about 450 miles, with nearly 100 peaks exceeding 10,000 feet in height, the highest being Mt. Whitney, 14,898 feet, Mt. Tyndall, 14,386 feet, and Mt. Shasta, 14,350 feet. Between these ranges is a basin, at some early time the bed of a lake, about 450 miles in length, the N. section known as the Sacramento Valley, and the S. section as the San Joaquin Valley. This valley contains Tulare Lake, and is drained by the Sacramento and San Joaquin rivers. The coast line is irregular, with numerous capes and bays, affording many good harbors. San Francisco Bay is the largest and best harbor on the Pacific coast.

California was for many years the first State in the Union in the production of gold. In 1923 gold in value $13,465,000 was produced. As early as 1841 gold was obtained by washing

near the San Fernando Mission. In 1848 the discovery at Coloma of large gold deposits started the up-building of California. At first mining was carried on by washing the river gravel, and in 1851 sluices were built through which the water was passed. These sluices were filled with blocks of wood or stones, which collected the gold as it sank. Digging was carried on also, and in 1852 an hydraulic system was introduced, by which great streams of water were turned against the gravel banks. This process was successful but by it the banks were rapidly swept away and the detritus threatened to choke the rivers, so that its use was soon prohibited by law. Gold is found in the metallic state, often associated with silver and other metals, on the slopes of the Sierras. It is also found in streams and alluvial deposits in coarse grains, and quartz deposits where it is extracted by amalgamation. A very rich quality of silver occurs in small quantities, and magnetic iron and cinnabar abound in the Sierras. Pyrites of iron and copper are found in gold-bearing quartz, and a rich variety of argentiferous galena occurs in San Bernardino county. Other valuable mineral products are: tin, plumbago, cobalt, granites, marbles, sandstones, hydraulic limestones and bituminous coal. Diamonds, onyx and other precious stones abound, and bitumen and petroleum are found in many places. Agriculture has developed enormously. There are about 100,000,000 acres in the state, and the farms which include orchards and vineyards take up 29,365,667 acres, of which 11,878,339 are improved, some highly so, the value of all being $3,343,-021,861 by the census of 1920. There are 4,219,040 acres, 67,391 farms now under irrigation. Every product of the temperate and sub-tropical zones are here grown, including all cereals, forage crops, vegetables, fruits and nuts. Crops in 1920 were valued at $589,757,377; dairy products, $276,-424,216; livestock, $204,378,445. The stores of petroleum are very large. California produces about the same amount as Texas and is exceeded only by Oklahoma in output. The product in 1920 was 103,377,361 barrels.

The soil varies with the surface conditions of the State. In the elevated portions it is rich, mellow, and easily worked, and timber land abounds. In the lower portions the soil varies from a rich loam to a heavy clay, or adobe. What was formerly considered desert land can now, under irrigation, be turned into valuable agricultural districts. Agriculture and commerce flourish, and the State is the center of great financial interests.

The manufacturing industry has had a remarkable development and in 1919 the census gave 11,942 manufacturing establishments with $1,233,480,-273 of capital, employing 296,858 persons and with an output valued at $1,981,204,701. Enormous shipping is carried on. San Francisco, Los Angeles and San Diego principal ports.

The principal universities and colleges are, University of California (opened 1869, non-sectarian); Leland Stanford Junior University (1891, non-sectarian); St. Ignatius College (1855, Roman Catholic); Santa Clara College (1851, Roman Catholic), and the University of Southern California.

The strongest religious denominations in the State are the Roman Catholic, Methodist Episcopal, Presbyterian, Congregational, Baptist, Protestant Episcopal, Lutheran, and Disciples of Christ. Illiteracy is low, being 3.3 per cent. in 1920. The Japanese population in 1920 was 71,952, an increase of 30,596 in ten years. The Chinese population was 28,812, a decrease of 7,436 since last census.

One of the points of interest is the motion picture colony at Hollywood, a suburb of Los Angeles. The atmosphere here is so clear that motion pictures can be taken on about 350 days of the year, while the topography and flora afford most vivid "locations." The retention of the Spanish influence in architecture adds much attractiveness to California homes. The forests are very extensive. Caniferous trees are most numerous. The giant redwood groves, the sequoia gigantea and s. sempervirens are one of the sights of the world. Here these trees grow to a height of 279 feet, with a diameter of 36.5 feet.

California has ceased to be an exporter of lumber; on the contrary, is compelled to ship lumber into the state from Washington and Oregon. In late years cotton growing has been developed which in turn has built up a cotton mill industry.

The Governor is elected for a term of four years and receives a salary of $10,000 per annum. Legislative sessions are held biennially, and are not limited in duration. The legislature in 1925 had 40 members in the Senate, elected for 4 years, and 80 in the House, elected for 2 years; salary of each $1,000 per term with mileage. Representatives in Congress, 11; State Government Republican.

In 1869 the completion of the Central Pacific R. R. advanced the prosperity of the State. From 1870 to 1890 the agitation against Chinese immigration led to the Exclusion Act. In 1906 a disastrous earthquake caused great destruction in San Francisco and other coastal towns. The same year the Anti-Japanese agitation led to international representations, and raised the question of State rights as affecting Federal interests.

**California, Gulf of,** or **Sea of Cortes,** an arm of the Pacific Ocean, separating Lower California from the Mexican mainland. It is 700 miles in length and varies in width from 40 to 100 miles.

**California, Lower,** a territory of Mexico, comprising a peninsula jutting into the Pacific Ocean, and separated from the mainland throughout its length by the Gulf of California. It is nearly 800 miles in length, and in different places 30 to 120 miles wide; area 58,328 square miles. It is mountainous and arid, but possesses valuable agricultural and mineral resources. The chief towns are Loreto and La Paz, the capital. Pop. (Est.) 55,000, of whom perhaps a half are Indians.

**California, University of,** a non-sectarian coeducational seat of learning in Berkeley, Cal. The undergraduate department is located at Berkeley, 9 miles from San Francisco; the astronomical department and Lick Observatory at Hamilton, Santa Clara county, and the professional schools at San Francisco. At Menlo Park the great Flood Mansion and grounds, donated in 1898, comprise a commercial college endowment. The university receives a handsome sum from the National Government for its agricultural experiment station; the State adds a large appropriation; and the whole is spent on four stations and several sub-stations, where many important horticultural experiments are made. The university in 1899 accepted plans for a new set of buildings to cost about $7,500,000. The principal benefactor of the university, since 1896, has been Mrs. Phœbe A. Hearst, widow of Senator Hearst. Her gifts have reached millions of dollars. As a result of these and other resources of endowment, the institution has become one of the richest of American universities.

**Caligula, Caius Cæsar Augustus Germanicus,** a Roman emperor, son of Germanicus and Agrippina; born A. D. 12, in the camp at Antium. He succeeded Tiberius, A. D. 37, and made himself very popular by his mildness; but at the end of eight months he was seized with a disorder, caused by his irregular mode of living, which appears to have deranged his intellect. After his recovery he suddenly showed himself the most cruel and unnatural of tyrants. He was assassinated by a band of conspirators A. D. 41.

**Caliper Compasses,** compasses made with arched legs to measure the diameters of cylinders or globular bodies, or with straight legs and retracted points to measure the interior diameter or bore of anything.

**Caliph, Calif,** or **Khalif,** the title borne by the successor of Mohammed in temporal and religious authority.

**Calisaya Bark,** a variety of Peruvian or cinchona bark, namely, that of Cinchona calisaya or flava.

**Calisthenics,** or **Callisthenics,** a name for exercises for promoting gracefulness and strength, and comprises the more gentle forms of gymnastics, especially for girls.

**Calixtines,** a Christian sect in Bohemia, the more moderate of the two great sections into which the Hussites were divided in 1420. Unlike the Taborites — the other section — they did not seek to subvert the government of the Church of Rome, but demanded the restoration of the cup to the people in the celebration of the Supper; the preaching of the Gospel in primitive simplicity and purity; the separation of the priests from

secular, and their entire devotion to spiritual, concerns; and, the prevention or punishment, by lawful authority, of "mortal" sins. The council of Basel, in 1433, to end the disastrous Bohemian war, invited envoys from the Hussites. Procopius Rasa and others appeared, but the effort failed. Afterward the council sent Æneas Sylvius into Bohemia. He, by conceding the use of the cup to the Calixtines, reconciled them to the Church of Rome.

**Calixtus,** the name of several Popes.

**Calixtus** (properly CALLISEN), **Georg,** a German theologian of the Lutheran Church; born in Schleswig in 1586. He wrote against the celibacy of the clergy, and proposed a reunion of Catholics and Protestants upon the basis of the Apostles' creed. He died in 1656.

**Calkins, Gary Nathan,** an American scientist; born in Valparaiso, Ind., Jan. 18, 1869. He was graduated at the Massachusetts Institute of Technology in 1890; had charge of scientific expeditions to Alaska in 1896 and 1897; and in 1900 was instructor in Zoölogy at Columbia University.

**Callahan, James Morton,** an American publicist; born in Bedford, Ind., Nov. 4, 1864. He was graduated at the University of Indiana in 1894, and became lecturer on American Diplomatic History at Johns Hopkins in 1898.

**Callao,** the port of Lima, Peru, lies 7 miles S. W. of Lima by rail, on a small bay. The town possesses a floating dock, and fine harbor works, embracing an area of 520 acres, with extensive pier and dock accommodation; and the spacious roadstead, sheltered by the island of San Lorenzo, is one of the safest in the world. The present Callao dates only from 1746, when the original city, a short distance to the S., was destroyed by an earthquake and an invasion of the sea. Callao was bombarded in 1880 during the war between Chile and Peru. By the completion of a direct cable between this port and Mollendo, telegraphic communication has been established with the United States. Pop. 50,000.

**Callender, John,** an American historian; born in Boston, Mass., 1706; collected many papers relating to the Baptists in America; and published "A Centennial Discourse on the Civil and Religious Affairs of the Colony of Rhode Island," which was the only history of that State for more than a century. He died in Newport, R. I., Jan. 26, 1748.

**Calliope,** one of the Muses. She presided over eloquence and heroic poetry, and is said to have been the mother of Orpheus.

**Calliope,** an asteroid, the 22nd found. It was discovered by Hind, on Nov. 16, 1852. Also a series of steam whistles, pitched to produce musical notes; operated by a keyboard.

**Callisthenes,** a Greek philosopher, born in 365 B. C. He was a grandson of Aristotle, and accompanied Alexander the Great in his expedition to Asia. He was accused of conspiracy, and put to death B. C. 328.

**Calmar,** a fortified seaport town of Sweden, on the W. side of a narrow strait of the Baltic, separating the island of Œland from the continent, 90 miles N. E. by E. of Carlskrona. The town, built of wood, stands on the small island of Quarnholm. Here, in 1397, was concluded the famous treaty which united the kingdoms of Sweden, Denmark, and Norway. Here also, in 1520, Gustavus Vasa disembarked to deliver his country from the domination of foreigners and of a sanguinary tyrant. Pop. (1921) 17,194.

**Calms, Regions of,** tracts in the Atlantic and Pacific Oceans, on the confines of the trade-winds, where calms of long duration prevail.

**Calomel,** mercury sub-chloride. It is insoluble in water, and blacked by ammonia. It is used in liver complaints, and in any of the complaints for which mercury internally administered is indicated. Care should be exercised in its use, as it is likely to induce salivation.

**Calorescence,** the transmutation of heat rays into light rays.

**Caloric,** the name given to a supposed subtle imponderable fluid to which the sensation and phenomena of heat were formerly attributed.

**Calorimeter,** an instrument for measuring the quantity of heat which a body parts with or absorbs when its temperature sinks or rises.

**Calotropis,** a genus of asclepiads, consisting of three species, which form shrubs or small trees, and are natives of the tropics of Asia and Africa.

**Calotype,** a process by which paper saturated with iodide of silver is exposed to the action of light, the image being developed and fixed by hyposulphite of soda.

**Calovius, Abraham,** (originally KALAU), the chief representative of controversial Lutheran orthodoxy in the 17th century; born in Mohrungen in East Prussia, April 16, 1612. He waged war incessantly on Arminian, Socinian, Reformed and Catholic doctrines. He was six times married, the last time in his 72d year. He died Feb. 25, 1686.

**Caloyers,** Greek monks, belonging to the order of St. Basil, who lead a very austere life.

**Caltrop,** a four-pronged piece of iron, each prong about 4 inches in length, formerly thrown down in warfare to check the approach of the enemy.

**Calumba,** or **Colombo,** used in medicine, a menispermaceous climber of Eastern Africa, which has been introduced into India. Sliced and dried, it has a greenish-yellow tint, bitter taste, and a faint aromatic odor. It is a useful mild tonic and stomachic. AMERICAN CALUMBA ROOT is obtained from Frasera Walteri, a gentianaceous biennial, and has properties like those of gentian.

**Calumet,** a pipe used by the North American Indians. The bowl is of stone, and the stem is ornamented with feathers, etc. The calumet is the emblem of peace. To refuse it is to make a proclamation of enmity, and to accept is a sign of friendship.

**Calvados,** a French department, part of the old province of Normandy, bounded on the N. by the English Channel, and E., W. and S. by the departments Eure, La Manche, and Orne. Area, 2,197 square miles; pop. (1921) 401,000; chief town, Caen, pop. (1921) 18,000.

**Calvary,** the English designation of the spot upon which the crucifixion of Jesus Christ is recorded as having taken place. It lay beyond the city, and by Captain Conder is identified with the old House of Stoning, or place of public execution, according to the law of Moses, on the top of the remarkable knoll outside the Damascus gate, on the N. side of Jerusalem. It is now generally believed to have been the knoll on the north-east of the city, formerly known as the Grotto of Jeremiah near the Damascus Gate.

**Calve, Emma,** a French opera singer; born in 1866. She made her début at Brussels in Gounod's "Faust." She has made successful tours of the United States in leading roles.

**Calverley, Charles,** an American sculptor; born in Albany, N. Y., Nov. 1, 1833. He won note with groups and figures and portrait busts of Greeley, Cooper, Howe, etc. He was elected to the National Academy of Design in 1875. He died Feb. 26, 1914.

**Calvi,** a seaport on the island of Corsica, on a peninsula in the Bay of Calvi. It was founded in the 13th century. It was so strongly fortified as to withstand several sieges, but in 1794, after a siege of 51 days, was taken by the English from the Corsicans. The following year it was retaken. Pop. about 2,500.

**Calvin, John,** (so called from Calvinus, the Latinized form of his family name, CAUVIN, or CHAUVIN), the second great reformer of the 16th century; born in Noyon, Picardy, July 10, 1509. Calvin died May 27, 1564, in the 55th year of his age. He was of a weak constitution, and suffered from frequent sickness. In Strasburg he had married a widow, Idelette de Burie, in 1539; a son, the fruit of their union, died early. In 1549 he lost his wife, after which he never married again. He was temperate and austere, gloomy and inflexible. His disinterestedness was rare. He had a yearly stipend of 150 francs, 15 measures of corn, and 2 casks of wine; and never received a larger one.

The chief doctrines of Calvin's system are: Predestination, particular redemption, total depravity, irresistible grace, and the certain perseverance of the saints, denominated the five points. The followers of Calvin in Germany are called the Reformed. In France most Protestants are Calvinists. Calvinism is the professed belief of the greatest part of the Presbyterians; the Particular Baptists in England and India, and the Associated Baptists in America; the Independents of every class in England and Scotland, and the Congregationalists of New England.

**Calvin, Samuel,** a Scotch-American scientist; born in Wigtonshire, Scotland, Feb. 2, 1840. He came to the United States when a youth and served in the Civil War. He studied geology as a life pursuit, and after 1874 was Professor of Geology at the University of Iowa, and State Geologist of Iowa after 1892. Died in 1911.

**Calvinistic Methodists,** a section of the Methodists, distinguished by their Calvinistic sentiments from the ordinary Wesleyans, who are Arminian. Wesley and Whitfield, the colleagues in the great evangelistic movement which did so much spiritually and morally to regenerate England in the 18th century, differed with regard to the doctrines of grace, Wesley being Arminian, and Whitfield Calvinistic; the latter revival preacher may be looked on as the father and founder of Calvinistic Methodism. In distinctive form it dates from 1725, but did not completely sever its connection with the English Church till 1810. In government it is now Presbyterian.

**Calvo Doctrine.** See DRAGO.

**Calx,** properly lime or chalk, but the term is more generally applied to the residuum of a metal or mineral which has been subjected to violent heat, and which is, or may be, reduced to a fine powder.

**Calycanthus,** a genus of hardy American shrubs, of which one species, Florida allspice, has yellow flowers, and is sweet-scented.

**Calydonian Boar.** According to a Greek myth, Œneus, King of Calydon, the ancient capital of Ætolia, omitted a sacrifice to Artemis, whereupon the goddess, when he was absent, sent a frightful boar to lay waste his fields. No one dared to face the monster, until Meleager, son of Œneus, with a band of heroes, pursued and slew him. The Curetes laid claim to the head and hide, but were driven off by Meleager. Later accounts make Meleager summon to the hunt heroes from all parts of Greece, among them the maiden Atalanta, who gave the monster the first wound.

**Calyx,** in botany, the name given to the exterior covering of a flower.

**Cam, Diogo,** a Portuguese explorer of the 15th century, who in 1484 discovered the mouth of the Kongo.

**Camaguey,** a province and its capital city in Cuba; both formerly known as PUERTO PRINCIPE. The province extends across the island between the provinces of Santa Clara and Oriente; has an area of 10,076 square miles; pop. (1922) 235,895. chief products, cattle, sugar cane, wax, honey, timber, and hemp. The city is in the heart of one of the wildest parts of the island, in the center of the province, and manufactures and exports cigars, sugar, tobacco, wax, and honey; pop. (1922) 98,193.

**Camayeu, or Camaieu,** a term used in painting where there is only one color, and where the lights and shadows are of gold, wrought on a golden or azure ground.

**Cambaceres, Jean Jacques de,** a French Senator; born in Montpellier, Oct. 18, 1753. During the reign of terror which followed the condemnation of Louis XVI. Cambaceres endeavored to check the arbitrary measures of the Assembly. He was a member of the Council of Five Hundred, and in 1796 drew up a "Plan of a Civil Code," which became the basis of the "Napoleonic Code." On the abdication of Napoleon, in 1814, Cambaceres withdrew into private life, but on the return of the emperor from Elba, he was promoted to the office of Minister of Justice. After the overthrow of Napoleon, he was banished from France on the ground of his having voted for the death of Louis XVI.; but in 1818 was reinstated in all his civil and political rights; he died, in Paris, March 8, 1824.

**Cambert, Robert,** a French musician; born in Paris about 1628. He founded the Royal Academy of Music, now the Paris Grand Opera. He died in London about 1677.

**Cambodia,** or **Camboja,** a State in Indo-China under a French protectorate, on the lower course of the Mekong, 220 miles from N. E. to S. W., and 150 miles broad, comprising an area of 45,000 square miles; and pop. (1921) 2,000,000. France, on Aug. 11, 1863, concluded a treaty with the King of Cambodia, Norodom, whom, from being a viceroy, the French had helped to elevate to the throne, placing Cambodia under a French protectorate. This treaty was superseded by that of June 17, 1884. Capital Pnom-Penh (pop. Est. 68,000).

**Cambon, Jules Martin,** a French diplomatist; born in Paris, April 5, 1845. He studied for the law and fought in the Franco-Prussian War; was Ambassador to the United States in 1897, retiring in 1903, and represented Spain in drawing up the Spanish-American protocol in 1898.

**Cambrai,** a town in N. France, about 23 miles from the Belgian frontier and 100 miles from Paris; on the Scheldt river. Former strong fortifications have been mostly dismantled. The town contains many beautiful churches. Here the famous "Ladies' Peace" of 1529 was concluded. Cambrai was in one of the early fighting zones of the great war. See APPENDIX: *World War.*

**Cambric,** originally the name of a fine kind of linen which was manufactured principally at Cambrai in French Flanders, but is now applied to a cotton fabric, which is manufactured in imitation of the true cambric.

**Cambridge,** a city, and one of the county seats of Middlesex county, Mass., on the Charles river and the Fitchburg railroad; opposite to and connected with Boston by four bridges. It was founded in 1630–1631, under the name of "Newe-Towne," or Newtown." In 1636 the General Court appropriated $2,000 to locate a school in Old Cambridge, which later became Harvard College. The first printing office in the United States was located in Cambridge. Cambridge has now extensive printing establishments. For historical and literary associations, Cambridge is one of the most famous cities in the United States. The venerable Washington elm, under which Washington took command of the American Army, July 3, 1775, still stands. "Craigie House," built by Col. John Vassall in 1759, was Washington's headquarters in 1775–1776, and afterward became the home of the poet Henry W. Longfellow. On Elm avenue is "Elmwood," the birthplace and home of James R. Lowell. Pop. (1920) 109,456.

**Cambridge,** city and capital of Guernsey county, O.; on Wills creek and several railroads; 26 miles E. of Zanesville; is in a coal, natural gas, and petroleum region; is a trade center of parts of three counties; and manufactures iron, steel, glass, pottery, tin, plate, and iron roofing. Pop. (1920) 13,104.

**Cambridge University,** a celebrated seat of learning and education, dating from English public schools established in Cambridge in the 7th century. The first college was founded under royal charter in 1237.

**Cambyses,** (1) a Persian of noble blood, to whom King Astyages gave his daughter Mandane in marriage. (2) The son of Cyrus the Great, became, after the death of his father, King of the Persians and Medes, B. C. 529. In the fifth year of his reign he invaded Egypt, conquering the whole kingdom within six months. He died in 521 B. C.

**Camden,** city, port of entry, and county seat of Camden county, N. J.; on the Delaware river, opposite Philadelphia, with which it is connected by several ferries. It is noted for its market gardens and manufactures. Pop. (1920) 116,309; (1925 Est.) 128,643.

**Camden,** county-seat of Kershaw county, S. C.; 32 miles N. E. of Columbia. It has extensive cotton and grain interests and is a health resort for sufferers from throat and lung troubles. Camden was the site of three noted battles. On Aug. 16, 1780, the American forces under General Gates, 3,600 strong, were defeated by Lord Cornwallis. This ended Gates's military career. On April 25, 1781, Greene, who succeeded Gates, was attacked and worsted by

Lord Rawdon at Hobkirk's Hill, near Camden. On Feb. 24, 1865, Camden was taken by General Sherman after a lively skirmish. Two thousand bales of cotton and a quantity of tobacco were burned. Pop. (1920) 3,930.

**Camden, Charles Pratt, Marquis,** an English statesman; born in 1714. After having studied law, he was called to the bar in 1738. After nearly 20 years devoted to close study he was appointed attorney-general, and later lord chief justice. He distinguished himself by his exertions in behalf of the American colonies, and in 1766 rose to the highest legal dignity, that of lord high chancellor. He died in London, April 18, 1794.

**Camel,** a genus of ruminant quadrupeds, characterized by the absence of horns; a fissure in the upper lip; a long and arched neck; one or two humps or protuberances on the back; and a broad elastic foot ending in two small hoofs. The native country of the camel is said to extend from Morocco to China, within a zone of



CAMEL.

900 or 1,000 miles in breadth. The common camel, having two humps, is found in the N. part of this region, and exclusively from the ancient Bactria, now Turkestan, to China. The dromedary, or single-humped camel is found throughout the entire length of this zone. To people residing in the vicinity of the great deserts the camel is an invaluable mode of conveyance. It will travel three days under a load and five days under a rider without drinking. The camel's power of enduring thirst is partly due to the structure of its stomach, to which are attached pouches capable of straining off and storing water for future use. It can live on little food, and of the coarsest kind. In this it is helped by the fact that its humps are mere accumulations of fat and form a store upon which the system can draw when the outside supply is defective. Camels which carry heavy burdens will do about 25 miles a day; those which are used for speed alone, from 60 to 90 miles a day. The camel is rather passive than docile, but it is very vindictive when injured. It lives from 40 to 50 years. The South American members of the family Camelidæ contain the llama and alpaca; they have no humps.

**Camelopard,** a name given to the giraffe, originally from the notion that it was a hybrid between a camel and leopard.

**Camelopardalis,** one of the N. circumpolar constellations added by Hevelius in 1690. It is a large irregularly shaped constellation, something like the animal, with its head close to the Pole. It contains no stars brighter than the fourth magnitude.

**Camelot,** a name applied in the mediæval romances to the "City of Legions" which grew out of the permanent quarters of the Second Augusta Legion at Caerleon-upon-Usk, but was built earlier by the mythical Belinus.

**Camel's Hump,** one of the peaks of the Green Mountains, in Vermont, 17 miles W. of Montpelier.

**Camel's Thorn,** a name of several plants. They are half-shrubby plants growing in the deserts of the East, and derive their name from the fact that they afford a food relished by camels.

**Cameo,** a term applied to gems of different colors sculptured in relief. The art of engraving on gems boasts of high antiquity, having been practised and was revived in Italy in the 15th century. The cameos of the ancients were confined to the agate, onyx, and sard, but are occasionally found executed on opal, beryl, or emerald.

**Camera Lucida,** an instrument invented by Wollaston in 1804; designed to produce on a plane surface a representation of a landscape or other object, which will enable one to delineate it with accuracy.

**Camera Obscura,** an optical instrument used to view or sketch objects at a short distance. It consists of a box, formed of two parts sliding in each other, like a telescope, so as to adjust the focus to bodies more or less distant. A tube with a lens is fixed in one side of it, and is turned to the object to be represented. The rays entering fall on a mirror sloped at an angle of 45°, which reflect them upward. It is convenient that they may be made to pass through a horizontal plate of glass, on which tracing paper may be placed so as to enable one to draw the figure.

**Camera, Photographic,** a camera obscura so constructed that sensitized plates or films may be placed at the back and receive the image.

**Camerarius, Rudolph Jakob,** a German botanist, born in Wurtemburg, Feb. 12, 1665. To him is ascribed the discovery of the sexual relation in plants. He died in Tubingen, Sept. 11, 1721.

**Camerlengo,** ("a chamberlain"), one of the highest officers of the Vatican court, and who acts as Pope when there is a vacancy on the papal throne.

**Cameron, Arnold Guyot,** an American educator; born in Princeton, N. J., March 4, 1864; was graduated at Princeton College in 1847, and at department of Greek at Princeton professor of French and German in Miami University; in 1891–1897, assistant professor of French in the Sheffield Scientific School of Yale University; and in 1897 accepted the chair of French at the John C. Green School of Science, Princeton.

**Cameron, James Donald,** an American capitalist and politician; born in Middletown, Pa., May 14, 1833; oldest son of Simon Cameron; was graduated at Princeton College in 1852. In 1876 President Grant appointed him Secretary of War, and in 1877 he succeeded his father as United States Senator from Pennsylvania. Died, 1918.

**Cameron, Simon,** an American statesman; born in Maytown, Lancaster co., Pa., March 8, 1799; began, when 9 years of age, to learn the trade of a printer. In 1820 he was editor of a paper in Doylestown, Pa., and in 1822 he held a similar post in Harrisburg. He then interested himself in banking and the building of railroads. From 1845 to 1849 he was United States Senator from Pennsylvania. He became a member of the Republican party on its formation, and in 1856 he was again elected United States Senator. In 1861 he was appointed Secretary of War by President Lincoln. In January, 1862, he resigned from the Cabinet, and was appointed minister to Russia. In November of the same year he resigned, and lived in retirement till 1866, when he was again elected to the United States Senate. In 1877 he retired from the Senate in favor of his son, James Donald Cameron. He died in Maytown, Pa., June 26, 1889.

**Camisards,** the title given to the Protestant insurgents in the Cevennes, after the revocation of the Edict of Nantes, from having worn their shirts over their dress by way of disguise, on the occasion of some nocturnal attacks.

**Camoens, Luis de,** a Portuguese poet; born in Lisbon, probably in 1524 or 1525. Disappointed in love, he became a soldier, and served in the fleet which the Portuguese sent against Morocco, losing his right eye in a naval engagement before Ceuta. An affray into which he was drawn was the cause of his embarking in 1553 for India. He landed at Goa, but, being unfavorably impressed with the life led by the ruling Portuguese there, wrote a satire which caused his banishment to Macao (1556). Here he wrote the earlier cantos of his great poem, the "Lusiad." Returning to Goa in 1561, he was shipwrecked and lost all his property except his precious manuscript. After much misfortune Camoens in 1570 arrived once more in his native land, poor and without influence, as he had left it. The "Lusiad" was printed at Lisbon (1572), and celebrating the glories of the Portuguese conquests in India, acquired a wide popularity. The king

accepted the dedication of the poem, but the only reward Camoens obtained was a pittance insufficient to save him from poverty. His other works consist of sonnets, songs, etc. He died June 18, 1579.

**Camomile,** or **Chamomile.** The species are annual and perennial herbs, all palæarctic, long known for the medicinal virtues of an infusion of its flowers as a bitter stomachic and tonic.

**Camorra,** a well-organized secret society, once spread throughout all parts of the kingdom of Naples.

**Camp,** the space occupied by an army halted with tents pitched.

**Campagna di Roma,** the coast region of Middle Italy, in which Rome is situated, from 30 to 40 miles wide and 100 long, and forming the undulating mostly uncultivated plain which extends from near Civita Vecchia or Viterbo to Terracina, and includes the Pontine Marshes. The soil is very fertile in the lower parts, though its cultivation is much neglected, owing to the malaria which makes residence there during midsummer dangerous. In ancient times the Campagna was well cultivated and populated. Nothing of its former prosperity being visible but the ruins of great temples, circuses, and monuments, and long rows of crumbling aqueducts overgrown with ivy and other creeping plants.

**Campania,** anciently a province on the W. coast of Italy, having Capua as its capital, lying between Latium, Samnium, and Lucania. It was one of the most productive plains in the world, yielding in extraordinary abundance corn, wine, and oil; and by both Greek and Roman writers is celebrated for its soft and genial climate, its landscapes, and its harbors.

**Campani-Alimenis, Matteo,** an Italian mechanician. In optics, his greatest achievement was the manufacture of the object-glasses, through which Cassini discovered two satellites of Saturn. He invented the illuminated dial for clocks.

**Campanile,** a tower for the reception of bells, principally used for church purposes, but now sometimes for domestic edifices. The most remarkable of the campaniles is that at Pisa, commonly called the "Leaning Tower." It is cylindrical in form, and surrounded by eight stories of columns, placed over one another, each having its entablature. The height is about 150 feet to the platform, whence a plumb-line lowered falls on the leaning side nearly 13 feet outside the base of the building.

The campanile of St. Mark, dominating all the surrounding buildings of St. Mark's Square, Venice, was the most conspicuous landmark of the city for over 1,000 years. The tower was 325 feet high and 42 feet square at the base. On the morning of July 14, 1902, it fell with a great crash into the square. The church of St. Mark and the palace of the Doges were not hurt, but the campanile in falling carried away the Sansovino Loggetta and the library of the Royal Palace.

**Campbell, Alexander,** founder of the sect known as the "Disciples of Christ"; born near Ballymena, in County Antrim, Ireland, Sept. 12, 1788. He emigrated to the United States in 1807. Though at first a Presbyterian, in 1812 he formed a connection with the Baptists, and for some time he labored as an itinerant preacher. In 1826 he published a translation of the New Testament, in which the words "baptism" and "baptist" gave place to "immersion" and "immerser." By his discussions on public platforms, and his serial publications, as well as his assiduity in preaching tours and training young men for the ministry, Campbell gradually formed a large party of followers, who began about 1827 to form themselves into a sect under the designation of "The Disciples of Christ." In 1841 Campbell founded Bethany College in West Virginia, where he died March 4, 1866.

**Campbell, Allan,** an American civil engineer; born in Albany, N. Y., in 1815. He laid out the route of the New York and Harlem railroad; built a railroad from Callao to Lima, Peru; was appointed engineer of the harbor defenses of New York in the early part of the Civil War; was chief engineer in the construction of the Union Pacific railroad; and became

commissioner of public works in New York (1876). He died in New York city, March 18, 1894.

**Campbell, Bartley,** an American dramatist; born in Allegheny City, Pa., Aug. 12, 1843. He died in Middletown, N. Y., July 30, 1888.

**Campbell, Charles,** an American historian; born in Petersburg, Va., May 1, 1807. He died in Staunton, Va., July 11, 1876.

**Campbell, Sir Colin, Lord Clyde,** a British military officer; born in Glasgow, Oct. 20, 1792. He took part in the expedition to the United States (1814), and then passed nearly 30 years in garrison duty at various places. On the outbreak of the Crimean War, in 1854, he was appointed to the command of the Highland Brigade; the victory of the Alma was mainly his; and his, too, the splendid repulse of the Russians by the "thin red line" in the battle of Balaklava. When, on July 11, 1857, the news reached England of the sepoy mutiny, Lord Palmerston offered him the command of the forces in India. He effected the final relief of Lucknow, and on Dec. 20, 1858 announced to the Viceroy that the rebellion was ended. He died Aug. 14, 1863.

**Campbell, Douglas Houghton,** an American educator; born in Detroit, Mich., Dec. 16, 1859; was graduated at the University of Michigan in 1882; then studied in Europe. Returning he was Professor of Botany in the University of Indiana till 1891, when he was called to the similar chair in Stanford University in Palo Alto, Cal.

**Campbell, Helen Stuart,** an American sociological writer; born in Lockport, N. Y., July 4, 1839. She has given close attention to the study of social problems. From 1881 till 1884 she was literary editor of "Our Continent," Philadelphia.

**Campbell, Henry Donald,** an American scientist; born in Lexingtroit, Mich., Dec. 16, 1859; was graduated at Washington and Lee University in 1882; later studied at Berlin and Heidelberg, and in 1887 became Professor of Geology and Biology at Washington and Lee University.

**Campbell, John,** a British historian; born in Edinburgh, March 8, 1708. From 1755 to the close of his life, he was agent of the British government for the province of Georgia. He died Dec. 28, 1775.

**Campbell, John Pendleton,** an American scientist; born in Cumberland, Md., Nov. 20, 1863. He became Professor of Biology at the University of Georgia in 1888.

**Campbell, Reginald John,** an English clergyman; born in London, Eng., in 1867; entered the Congregational ministry in 1895; became pastor of the City Temple, London, in 1903; published "The New Theology" (1907), which attracted much attention on both continents.

**Campbell, Thomas,** a Scotch poet; born in Glasgow, July 27, 1777. He died in Boulogne, June 15, 1844, and was interred at Poets' Corner, in Westminster Abbey.

**Campbell, William W.,** an American lawyer and historian; born in Cherry Valley, N. Y., in 1806. Settled in New York city, he was a judge of the State Supreme Court. He died in Cherry Valley, Sept. 7, 1881.

**Campbell, William Wilfred,** a Canadian poet; born in Western Ontario, Canada, in 1861.

**Campbellites,** the followers of Rev. John McLeod Campbell, of Dumbartonshire, who was deposed from the Church of Scotland, May 24, 1831, for teaching the universality of the Atonement.

**Campbell's Station,** a town in Knox county, Tenn., noted for the battle fought (Nov. 16, 1863) between a Federal army under Burnside and a Confederate one under Longstreet, in which the Confederates were repulsed at nightfall, after sharp fighting.

**Campeachy,** a State, its capital, and a bay of Mexico, on the Gulf; pop. State (Est.) 95,000), town about 18,000.

**Campero, Narciso,** a Bolivian statesman and soldier; born in Tojo (now in Argentina), in 1815. He studied and traveled in Europe, and on his return entered the Bolivian army, and rose to the rank of Brigadier-General. After the overthrow of Diaz (1880), he was chosen President

of Bolivia. Internally, his administration was quiet. He died in 1896.

**Camphausen, Wilhelm,** a German painter; born in Dusseldorf, Feb. 8, 1818. He was specially famous for battle-pieces. He died in Dusseldorf, June 16, 1885.

**Camphene,** the commercial term for purified oil of turpentine, obtained by distilling the oil over quicklime to free it from resin.

**Camphor,** a powerful diffusible stimulant and antispasmodic. It enters into union with opium, as a sedaditive, under the name of paregoric.

**Campi,** a family of Italian artists who founded what is known in painting as the school of Cremona.

**Campion, Edmund,** an English Jesuit; born in London, Jan. 25, 1540. He was educated at Oxford, and distinguished himself greatly. Though at first a Roman Catholic, he adopted the Reformed faith, and took deacon's orders in the Church of England; but he afterward recanted, became a Jesuit, and attacked Protestantism. He was found guilty of conspiring to raise sedition, and was executed at Tyburn, Dec. 1, 1581.

**Camp Meetings,** gatherings of devout persons, held usually in thinly-populated districts, and continued for several days at a time, with the view of securing prolonged and uninterrupted religious exercises.

**Campo-Formio,** a town in Italy, 66 miles N. E. of Venice, famous for the treaty of peace between Austria and France, which was signed in its neighborhood on Oct. 17, 1797.

**Campos, Arsenio Martinez,** a Spanish military officer; born in Cuba in 1834. Appointed a lieutenant in the army in 1858; became chief of the battalion in the Morocco campaign of 1859; was on duty in Cuba with the rank of colonel in 1864–1870; took part in suppressing the Carlist insurrection and was promoted brigadier-general in 1870; opposed the republic after the abdication of King Amadeus, and was imprisoned as a conspirator. Under a plea for permission to be allowed to serve as a private, he was released and given command of a division. With General Jovellar, he called Alphonso XII. to the throne; was made commander-in-chief of the Catalonia district, and crushed Don Carlos at Pena de la Plata in 1876. In 1877 he was appointed commander-in-chief in Cuba, and brought the revolution there to a close. In April, 1895, he was appointed governor-general and commander-in-chief in Cuba, and in January, 1896, he was recalled to Spain. On his arrival in Madrid he repeated his belief that the trouble in Cuba could only be ended by granting reforms. He died Sept. 23, 1900.

**Campo Santo** (lit. "Holy Field"), the name given to a burying-ground in Italy.

**Campus Martius** (the "Field of Mars"), an extensive plain or meadow without the walls of Rome, where the levies of troops were made by the tribunes, where the ballot for the conscription was drawn, and where all military exercises were performed. It was also a gymnasium for youths. It was here that the great assemblies of the people took place to elect their public officers.

**Campus Sceleratus,** a name given to a spot within the walls of Rome, and close by the Porta Collina, where those of the vestal virgins who had transgressed their vows were entombed alive.

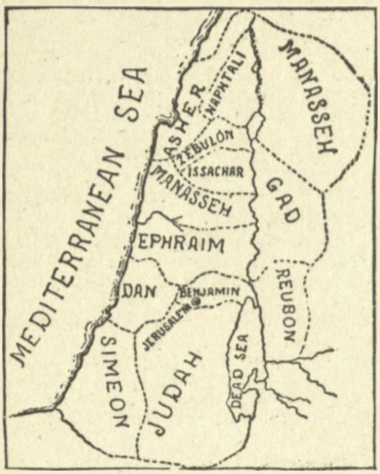
**Cam Wood,** a wood used for making knife-handles and ornamental knobs to furniture. It is called also Barwood and Ringwood.

**Cana,** a town of Palestine celebrated in Scripture as the scene of our Lord's first miracle, when he turned water into wine.

**Canaan,** the country W. of the Jordan, called also Chanaan, and the Land of Canaan, after one of the sons of Ham. The Greeks applied the term Cana to the entire region between the Jordan and the Mediterranean up to Sidon, afterward termed by them Phenicia, a name which by degrees came to be confined to Phenicia proper.

**Canaanites, The,** a word used in two senses: (1) For the tribe of the "Canaanites" only. (2) Applied as a general name to the non-Israelite inhabitants of the land. Instances of this are: Genesis xii: 6; Numbers xxi: 3. Judges i: 10; and Gene-

sis xiii: 12. See also Genesis xxiv: 3, 37; comp. xxviii: 2, 6; Exodus, xiii: 11; comp. 5. Like the Phœnicians, the Canaanites were probably given to commerce.




MAP SHOWING TRIBAL POSSESSIONS.

**Canada, Dominion of,** a Federal Union of Provinces and Territories, comprising all the British possessions in North America, excepting Newfoundland; bounded by the Arctic, Pacific, and Atlantic oceans, and the United States; land area, 3,603,910 square miles; number of Provinces, and Territories, 11; population (1901) 5,371,315; (1911) 7,206,643; (1921) 8,788,483; capital, Ottawa.

Extending over so large a territory, Canada presents a great variety of surface. Along the Atlantic coast is a range of hills extending inland from 15 to 20 miles. About 60 miles inland, the Cobequid mountains, some reaching an altitude of 1,100 feet, extend in a line parallel to the coast from the Bay of Fundy, through Nova Scotia to the Strait of Canso. Nova Scotia is a long fertile plain. A third mountain range crosses New Brunswick from the Gulf of St. Lawrence to the State of Maine. An extensive plateau intervenes between these mountains and the Cobequids. The central part of the Dominion consists of a vast undulating plain, extending W. to the foothills of the Rocky Mountains. This section consists of three prairie plateaus. The E., 800 feet high, known as the Red River Valley and Lake Winnipeg region, contains about 7,000 square miles of valuable wheat land. The middle plateau has an area of 105,000 square miles, altitude, 1,600 feet, and includes the Qu'Appelle and Assiniboia River valleys. The third plateau extends 450 miles E. from the Rocky Mountains, and has an average altitude of 3,000 feet. The Rocky Mountains are the most prominent physical features of the Dominion, and stretch from Alaska to California, some of the peaks attaining a height of 16,000 feet. Among the highest are Mt. Hooker, 16,760 feet; Mt. Brown, 16,000 feet, and Mt. Murchison, 15,700 feet. The Canadian Pacific railroad crosses the Rockies through the Kicking Horse Pass, just S. of Mt. Murchison, at an altitude of 5,300 feet. Between these mountains and the Pacific coast are the Selkirk Mountains, the Gold Range, a central plateau, and the Cascade or Coast Range. The Cascade or Coast Range is a continuation of the Sierra Nevada of California, reaches an altitude of 7,000 feet, and contains many extinct volcanoes. The Selkirk range has a glacier region of greater extent than that of Switzerland. The coasts of the Dominion have numerous indentations, the largest of which are the Gulf of St. Lawrence, the Gulf of Georgia, the Bay of Fundy, and the Bay of Chaleurs. In the N. are many large bays or inland seas, of which Baffin Bay, on the N. E., and Hudson Bay, near the center of the Dominion, are the largest. The lakes of Canada are the most extensive in the world; besides the Great Lakes, there are many large lakes in the Northwest Territories and Manitoba.

Canada is very rich in its mineral deposits. The most important minerals found are gold, silver, iron, copper, nickel, lead, and coal; besides manganese, cobalt, asbestos, pyrites, phosphates, building stones, marbles, petroleum, and salt. Gold is principally mined in British Columbia, the


DOMINION OF CANADA
AND
NEWFOUNDLAND
Scale of Miles
0 100 200 400 600
Important Towns are shown in Boldface Type.
ARCTIC OCEAN
PACIFIC OCEAN
ATLANTIC OCEAN
HUDSON BAY
DAVIS STRAIT
BAFFIN BAY
BAFFIN ISLAND
FOX LAND
COCKBURN LAND
PRINCE PATRICK I.
PRINCE ALBERT LAND
VICTORIA I.
KING WILLIAM I.
SOUTHAMPTON I.
MELVILLE PEN.
BOOTHIA PEN.
PRINCE OF WALES I.
PRINCE EDWARD I.
ANTICOSTI I.
NEWFOUNDLAND
St. John's
Halifax
Quebec
Montreal
Ottawa
Toronto
Winnipeg
Regina
Calgary
Edmonton
Prince Albert
Battleford
Moose Jaw
Brandon
Port Arthur
Fort William
Duluth
Minneapolis
Sioux Falls
Sioux City
Milwaukee
Chicago
Detroit
Cleveland
Buffalo
New York
Boston
Portland
Tarmouth
Sydney
Charlottetown
Fredericton
St. John
Gulf of St. Lawrence
Hudson Strait
Fort Churchill
Fort Nelson
York Factory
Fort Simpson
Fort Resolution
Fort McPherson
Fort Good Hope
Fort Providence
Fort Smith
Fort McMurray
Fort Saskatchewan
Fort Macleod
Fort Qu'Appelle
Fort Pelly
Fort Ellice
Fort Alexander
Fort Frances
Fort Wrangel
Fort Selkirk
Fort Yukon
Dawson
Mackenzie R.
Peace R.
Athabasca R.
Saskatchewan R.
Red R.
Assiniboine R.
Winnipeg R.
Nelson R.
Churchill R.
Albany R.
Moose R.
Ottawa R.
St. Lawrence R.
Yukon R.
Columbia R.
Fraser R.
Thompson R.
Kootenay R.
Bow R.
Belly R.
Waterton L.
Great Slave L.
Great Bear L.
Athabasca L.
Lake Winnipeg
Lake Manitoba
Lake of the Woods
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Lake Nipigon
Lake Nipissing
Lake St. John
Lake Temiscamingue
Rocky Mts.
Mackenzie Mts.
Richardson Mts.
Selkirk Mts.
Cascade Mts.
Coast Mts.
Alaskan Mts.
Laurentian Mts.
Alaska Pen.
Gulf of Alaska
Queen Charlotte Is.
Vancouver I.
Nootka I.
Kodiak I.
Aleutian Is.
Behring Str.
Behring Sea
Arctic Circle
Yukon Territory
Mackenzie District
Keewatin
Ungava
Labrador
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward I.
Newfoundland
Washington
Oregon
Idaho
Montana
Wyoming
Nevada
Utah
California
Colorado
Nebraska
Iowa
Illinois
Michigan
Wisconsin
Minnesota
North Dakota
South Dakota
Pennsylvania
New York
Ohio
Maine
Vermont
New Hampshire
Massachusetts
Connecticut
Rhode Island
New Jersey
Maryland
Virginia
West Virginia
Kentucky
Tennessee
Missouri
Kansas
Arkansas
Mississippi
Alabama
Georgia
Florida
Carolina
Seattle
Portland
Boise
Helena
Butte
Cheyenne
Salt Lake Cy.
Carson Cr.
Sacramento
C. Blanco
C. Mendocino
C. Flattery
C. Prince of Wales
C. Barrow
C. Lisburne
C. Romanzof
C. Fareweel
C. Chidley
C. Race
Pt. Barrow
Herschel I.
Kotzebue Sd.
Norton Sd.
Kuskokwim Bay
Bristol Bay
Cook Inlet
Prince William Sd.
Yakutat Bay
Sitka
Juneau
Dixon Entrance
Hecate Str.
Queen Charlotte Sd.
Strait of Juan de Fuca
Puget Sd.
Gulf of Georgia
Nootka Sd.
Barkley Sd.
Esquimalt
Victoria
Vancouver
New Westminster
Nanaimo
Kamloops
Revelstoke
Golden
Banff
Lethbridge
Medicine Hat
Swift Current
Moose Jaw
Regina
Yorkton
Prince Albert
Battleford
Edmonton
Calgary
Red Deer
Wetaskiwin
Strathcona
Athabasca Landing
Peace River Landing
Fort Vermilion
Fort Chipewyan
Fort Smith
Fort Resolution
Fort Simpson
Fort Wrangel
Fort Selkirk
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Mackenzie District
Keewatin
Ungava
Labrador
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward I.
Newfoundland



(C) Underwood and Underwood

MACKENZIE KING, Prime Minister of Canada

newly organized Yukon Territory, and Nova Scotia. The Nova Scotia gold district extends over an area of 6,000 square miles, and the metal is extracted from the quartz in a very fine and pure state. Gold is also found in rich deposits in the Northwest Territories. Extraordinary silver deposits are found in several islands on the N. shore of Lake Superior and in argentiferous galena in Quebec, Nova Scotia, and British Columbia. Copper abounds in British Columbia, Nova Scotia, Ontario, Quebec, New Brunswick, and the Northwest Territories. The copper found on the N. shore of Lake Superior, and in Ontario, is of excellent quality. Iron is found in great quantities at Hull, Ontario, in a bed 90 feet thick. This ore is magnetic, yielding 70 per cent pure iron. Magnetite is also found in Nova Scotia and New Brunswick. Silver-bearing lead, tin, zinc, and bismuth are found in many places. Coal exists in Nova Scotia, New Brunswick, British Columbia, and the Northwest Territories. The Nova Scotia and New Brunswick fields are of great extent, and the value of this output in British Columbia alone is second only to that of its gold. Anthracite is found in Queen Charlotte and Vancouver Islands.

The quantity of Canada's mineral output for 1922 was: Gold, 1,230,985 ounces; silver, 17,611,646 ounces; copper, 43,321,403 lbs.; nickel, 17,496,490 lbs.; lead, 94,170,469 lbs.; zinc, 28,199 tons; pig iron, 429,024 tons, and coal, 15,045,286 tons. Wood pulp was produced to the quantity of 2,180,578 cords valued at $38,283,262. The capital invested in the Canadian wood pulp industry was $347,533,333.

The greater part of Nova Scotia, Quebec, New Brunswick, Ontario, and Vancouver Island, beside the country lying between Lake Superior and the Rocky Mountains, is admirably adapted to agriculture. And this industry is rapidly developing. Canada ranks third among the wheat producing countries of the world. In 1922, 399,786,400 bushels were raised, having a value of $339,419,000; oats, 491,239,000 bushels with value of $185,455,000 ranked next; barley and rye, 71,000,000 bushels each with value of each crop of $33,330,000; corn, 13,798,000 bushels with market value of $11,509,000.

Canada has no National system of education, but under the British North America Act, 1867, the right to legislate on matters respecting education was placed in the hands of the government of the separate provinces. In Nova Scotia, New Brunswick, British Columbia, and Prince Edward Island, the schools are strictly undenominational. In Manitoba all public schools are non-sectarian. In Quebec and Ontario the schools are non-sectarian, but the Protestants and Roman Catholics are allowed separate schools.

The St. Lawrence River, which forms for many miles the boundary between Canada and the United States, is navigable to ocean steamers as far as Montreal, which has been the greatest grain shipping point on the continent. Montreal shipped in 1922 148,564,486 bushels of grain. The rivers of Canada have an enviable force of 19,000,000 horse power. Canada has considerable shipping on both the Atlantic and the Pacific Oceans. Vancouver is Canada's most important port on the Pacific, and in 1922, 5,438,764 tons were entered and cleared from that port. Canada's railways are for the greater part Government owned and operated. The Canadian Pacific is the most important of those privately owned.

There is no state church in Canada. On account of the great preponderance of the French in Quebec the Roman Catholic Church leads in number of members. In the year of 1921 the official census of churches shows 3,383,663 Roman Catholics; 1,408,812 Presbyterians; 1,407,959 Anglicans (Protestant Episcopal); 1,154,744 Methodists; 421,730 Baptists, and 287,484 Lutherans.

The Constitution of Canada is after the model of the mother-country. The Parliament consists of the King, an upper house styled the Senate, and a House of Commons. The King is represented by a governor-general, who exercises his authority with the aid and advice of a council of ministers, styled the King's Privy Council for Canada. The authority of the governor-general is largely nominal, the government really being carried on by the Prime Minister and Council, who

are directly responsible to Parliament. The cabinet must be supported by a majority of the House of Commons, or go out of office. The Senate, under the provisions of an Act of 1915, consists of 96 members, chosen by the governor-general, and hold the appointment for life. Among other qualifications, a senator must have real property to the value of $4,000, and must be a resident in the province for which he is appointed. The Speaker of the Senate is nominated by the governor-general. The House of Commons consists of 221 members. The duration of a House of Commons is not to exceed five years. In July, 1885, an Electoral Franchise Act was passed, providing for a uniform franchise for the whole Dominion in elections for the House of Commons. The House of Commons elects its own Speaker. Any bill passed by the Houses of Parliament, even though assented to by the governor-general in the King's name, may afterward be disallowed by the Imperial Privy Council.

Each one of the different provinces also has an executive and a legislature of its own, presided over by a lieutenant-governor, and constituted much as before the Union. The lieutenant-governor are appointed by the governor-general. In this distribution of legislative power between the general and the provincial parliaments, certain classes of subjects of a local nature are assigned exclusively to the legislatures of the provinces, while subjects of more general concern are assumed by the Parliament. The debts of the several provinces, at the Union, were assumed (with certain limitations) by the Federal Government; and, on the other hand, certain duties and revenues, and certain public works and properties belonging to the several provinces before the Union, were taken possession of to form a consolidated revenue-fund for defraying the interest of these debts, and for other expenditures of the Federal Government.

On Sept. 1 1905, Alberta and Saskatchewan, formed from the provisional districts of Alberta, Athabaska, Assiniboia and Saskatchewan, were made provinces. The Yukon Territory, of which the Klondike is a small section, was constituted in 1898.

The population census of 1921 by provinces was: Prince Edward Island, 88,615; Nova Scotia, 523,837; New Brunswick, 387,876; Quebec, 2,361,199; Ontario, 2,933,662; Manitoba, 610,118; Saskatchewan, 757,510; Alberta, 588,454; British Columbia, 524,582; Yukon, 4,157; Northwest Territory, 7,988. The largest cities were: Ottawa, the capital, 107,843; Montreal, 618,506; Toronto, 521,893; Winnipeg, 179,081; Vancouver, 117,217; Hamilton, 114,151; Quebec, 95,193; Halifax, 58,372; London, 60,959.

In 1534 Jacques Cartier, a French navigator, entering the St. Lawrence on the festival of the saint of that title, took nominal possession of North America in the name of his king, Francis I. In 1608 Quebec was founded by De Champlain; in 1623 he built Fort St. Louis, from which stronghold France ruled for 150 years a vast region extending E. to Acadia (now Nova Scotia), W. to Lake Superior, and ultimately down the Mississippi as far as Florida and Louisiana. The Recollet and Jesuit missionaries traversed the country, and underwent incredible hardships in their zeal for the conversion of the Indians. These fearless priests were the pioneers of civilization in the far West, and to La Salle is due the discovery of the Mississippi valley. In 1670 Charles II. granted the Hudson Bay Company the perpetual exclusive right of trading in the territory watered by all the streams flowing into Hudson Bay. Garrisoned forts were raised at suitable points, and bitter enmity between the French and English traders led to bloody struggles. The wars on the American continent followed the course of the wars in Europe, until the long struggle between France and England for the supremacy in America came to a close on the "Plains of Abraham" in 1759, when General Wolfe defeated Montcalm. Peace was concluded between Great Britain and France, 1763, when Canada was formally ceded to England, and Louisiana to Spain. In the same year a small portion of the recently acquired territory was by royal proclamation organized under English laws. In 1774 the new province was extended by parliamentary enactment, and that under French laws, down the

Ohio to its confluence with the Mississippi, and up the latter stream to its source. Finally, Canada receded to its present limits in 1783. In 1791 Canada was divided under separate legislatures into two sections, the E. retaining French institutions, and the W. receiving those of England; and these sections were reunited for legislative purposes in 1841. In 1867 Upper and Lower Canada, Nova Scotia, and New Brunswick were united as the Dominion of Canada, and in 1870 the Hudson Bay Company's territory was divided into Manitoba and the Northwest Territories and united to the Dominion. British Columbia entered the Union in 1871, and Prince Edward Island in 1873. The division of the Northwest was attended by the rebellions of half-breeds under Louis Riel in 1870 and 1885. Fenian raids in 1866 and 1870-71 also disturbed the peace of the Dominion. In 1893 a court of arbitration on the Bering Sea Seal Fisheries met in Ottawa. In 1896 Quebec's boundaries were extended to Hudson Bay. In 1897 preference was given British goods. In 1903 the Alaskan Boundary dispute was decided in favor of the United States.

On the outbreak of the great war in Europe, Canada responded promptly and efficiently to the call of the mother country, and maintained a hearty support with men, money, munitions, and other aid. Relations with the United States speedily became more cordial than ever. Before the United States was forced into the war its government had advanced large sums of money to lighten Canada's great burden, and vast quantities of war supplies were shipped therefrom through Canada for use by the Entente Allies. For details see APPENDIX: *United States in the World War; World War.*

**Canada,** a Spanish term used to indicate a small canon, or valley with steep rocky walls.

**Canada Balsam,** a pale balsam, obtained by incision from a Canadian tree, the American silver-fir, sometimes called the Balm of Gilead fir.

**Canada Goose,** an American wild goose 30 to 35 inches long, brownish above, lighter below, head, neck, bill, and feet black, a white patch on the cheek; breeds in the N. of the continent and migrates S. when the frost becomes severe.

**Canada Hemp,** a perennial herb, of the dogbane family native of North America. It has a strong fiber, used by the Indians for twine, nets, woven fabrics, etc.

**Canada Rice,** a floating grass growing in lakes and sluggish streams in Canada and the Northern United States, yielding a grain that forms part of the food of the Indians, and is eaten by the whites also.

**Canadian Pacific Railway,** a line of railway which traverses British North America from the St. Lawrence to the Pacific, and opened for general traffic in June, 1886. Commencing at Montreal, the line goes to Ottawa, thence round the N. of the Great Lakes to Port Arthur at the head of Lake Superior, and thence to Winnipeg, Manitoba, thence to Stephen in the Rocky mountains, then across British Columbia to Vancouver on the Pacific. The length of the line from Montreal to Vancouver is 2,909 miles.

**Canadian River,** a river that rises in the N. E. part of New Mexico, and runs generally E. through Texas and Indian Territory to the Arkansas. Its length is about 900 miles.

**Canaigre,** a species of dock, growing abundantly in New Mexico and Texas. The rootstock furnishes a material used in tanning.

**Canaille,** a French word, denoting the most degraded element of the populace, and applied to an individual as a term of contempt.

**Canal,** an artificial water-course or channel, especially used for the passage of boats. The Egyptians very early made a canal connecting the Nile and the Red Sea. Most of the ancient nations had canals. The great canal of China was constructed partly in the 7th and partly in the 9th century A. D.; it is 825 miles long. The first known English canal was cut by the Romans at Caerdike. The Caledonian canal projected in 1803 was opened in 1822. The Erie canal, so important to New York city, was begun in 1817, and completed in 1825. The Welland canal parallel to Niagara river and cataract, and the United States and Canadian Sault Ste. Marie canals

overcoming St. Mary's Falls, were opened in 1833, and 1876, and connect for navigation the Great Lakes and the St. Lawrence River basins. The Languedoc, or Canal du Midi, connecting the Atlantic with the Mediterranean, was completed in 1861. The Suez canal, connecting the Mediterranean and the Red Sea, was opened in 1869. It is 99 miles long; 26 feet deep; 327 feet wide for 77 miles; and 196 feet for the remainder. Its success suggested the cutting of the Panama Canal (see article), across the isthmus, to join the Pacific and Atlantic Oceans. This great undertaking, begun by the renowned engineer of the Suez canal, M. de Lesseps, was, after a prosecution to a stage near completion, abandoned in 1892, as a result of a terrific scandal. The great Manchester ship canal, extending from Eastham to Manchester, England, was opened Jan. 1, 1894. The Corinth ship canal, across the Isthmus of Corinth, was opened by King George of Greece, Aug. 6, 1893. On June 20, 1895, the great Baltic and North Sea canal was opened by the German Emperor in the presence of a navy representing all nations. Work began on the great Chicago drainage canal Sept. 3, 1892, and by Jan. 1, 1900, it was completed. The main channel is 29 miles long, of which about nine miles was cut through solid rock. In rock the minimum depth is 22 feet. See PANAMA CANAL.

**Canalejas y Mendez, José,** a Spanish statesman; became a leader of the Liberal party; editor of "El Heraldo" of Madrid; president of the Academy of Jurisprudence; chief of the Departments of Justice, Finance, Public Instruction, and Public Works; and Feb. 9, 1910, Prime Minister; was conspicuous in the controversy between Spain and the Vatican. He was assassinated Nov. 12, 1912.

**Canard,** a false report; a silly rumor.

**Canary Bird,** a singing bird, a kind of finch from the Canary Islands. They were introduced into Europe 300 or 400 years ago.

**Canary Flower,** an annual climbing plant of the Indian cress family, a native of New Granada, cultivated in Europe for its showy yellow flowers.

**Canary Islands,** a group of islands belonging to Spain in the Atlantic Ocean, off the N. W. coast of Africa, forming a Spanish province. The group consists of seven large and several small islets, with a joint area of about 2,807 square miles, and a pop. (1921) of 473,497. The principal islands are Lanzarote, Fuerteventura, Gran Canaria, Teneriffe, Gomera, Palma, and Hierro or Ferro. The distance from Fuerteventura to the African coast is about 62½ geographical miles. The coasts are steep and rocky, and the surface is diversified with high mountains, narrow gorges, and deep valleys. All the islands are volcanic, and everywhere show plain marks of their origin. There are no rivers, and on several of the islands water is scarce.

**Canberra,** site of the permanent capital of the Australian Commonwealth, in the State of New South Wales, selected in 1910, area 900 square miles, being built to order after plans by Walter B. Griffin, of Chicago.

**Canby, Edward Richard Sprigg,** an American army officer; born in Kentucky, in 1817. He graduated at West Point in 1839; served in the Mexican War, commanded the United States troops in New York city during the draft riots of 1863; succeeded General Banks in the command of the army in Louisiana, 1864; became Brigadier-General, 1866. He was treacherously shot by an Indian while negotiating for the removal of the Modocs from Northern California, April 11, 1873.

**Cancan,** a dance, something of the nature of a quadrille, but accompanied by violent leaps and indecorous contortions of the body.

**Cancer,** in astronomy, the fourth sign in the zodiac. The sun enters this sign about June 21. He is at his greatest N. declination on entering, and the point which he reaches is called the summer solstice, because he appears for the moment to stop in his progress N., and turn S. again.

**Cancer,** (derived from the Latin cancer, a crab), or **Carcinoma,** in medicine and surgery a name which is given to a group of malignant diseases,

in consequence of their supposed resemblance to a crab. In the treatment of cancer it is necessary to get the disease at an early stage of its growth, so that it may be thoroughly removed. If it is detected and removed at this period of its existence it is curable, but if the neighboring glands have become involved in the disease the relief is only temporary.

**Cancer Root,** or **Beech Drops,** a parasitic herb of the order Orobancheæ, a native of North America, growing on the exposed roots of beech-trees. The whole plant is powerfully astringent, and the root is especially bitter and nauseous.

**Cancrum Oris,** (literally "sore in the mouth"), known also as Noma, Water-cancer, and Water-canker, a peculiar form of mortification, arising apparently from defective nutrition. The disease seldom occurs except between the 2d and 11th years, and is usually preceded by measles, remittent or intermittent fever, or some other serious disease.

**Candace,** a name apparently common to the warrior queens of Ethiopia in the later period of the kingdom of Meroe. The most distinguished of them invaded Egypt 22 B. C., was defeated by the Romans and obliged to sue for peace, which she obtained, with a remission of the tribute imposed on her by Petronius. One of her successors is mentioned in Acts vii: 27; her high treasurer was baptized by Philip the Deacon on the road to Gaza.

**Candelabrum,** a lamp-stand. Its tripedal form among the ancients is believed to have been derived from the shape of its predecessors — braziers or basins for holding fuel, mounted on tripods.

**Candia,** or **Crete,** (called in the most ancient times Idæa, from Mount Ida, afterward Creta, whence the Turkish name Kirid), one of the most important islands of the Turkish empire; situated in the Mediterranean, 81 miles from the S. extremity of the Morea, and 230 from the African coast. Length 160 miles; breadth 7 to 35; area 3,330 sq. m.; pop. 310,400. In 1868 a formidable insurrection, fomented by Greece, was with difficulty suppressed by the Turks. In consequence of this revolt the Turks granted to the Cretans a degree of autonomy, but Turkish bad faith produced another revolt nine years later. At that time a new constitution of a parliamentary character was inaugurated, but many of its provisions were annulled in 1889. In 1896 there was again a rising against the Turks, in which the Greeks took part. The Greek troops landed on the island were withdrawn at the instance of the Great Powers, who undertook to secure an autonomous government under Turkish suzerainty and to cause the Turkish troops to be withdrawn. On Sept. 6, 1898, the Mohammedans of Candia rose against the Christians, and the fighting resulted in the death of many of the latter, including some British sailors. The leading powers at once demanded the complete withdrawal of the Turkish troops who had abetted the rebels, and ultimately on Oct. 11, the Sultan complied with their demand, the troops being soon after withdrawn. Annexed to Greece in 1912 as a result of the Balkan War. Now a part of that republic.

**Candidate,** a term taken from the Latin candidatus, a candidate, literally a person dressed in white, because, among the Romans, a man who solicited an office, such as the prætorship or consulship, appeared in a bright white garment.

**Candleberry,** a shrub, natural order Myricaceæ, growing from 4 to 18 feet high, and common in North America, where candles are made from its drupes or berries which are about the size of peppercorns, and covered with a greenish-white wax.

**Candle Fish,** a small fish peculiar to the Pacific coast of the United States. It is so oily that when dried and a wick is drawn through it, it will burn like a candle.

**Candlemas,** the feast of the purification of the Virgin, Feb. 2d; so-called from being formerly celebrated with processions and shows of candles. It was instituted in the 6th century.

**Candler, Warren A.,** an American clergyman; born in Carroll county, Ga., Aug. 23, 1857. He was graduated at Emory College in 1875, was ordained to the Methodist ministry,

and in 1888 was elected a bishop. He has been President of Emory College since 1888.

**Candlish, Robert Smith,** a Scotch clergyman, born in Edinburgh, March 23, 1806; was educated at Glasgow University. After the death of Chalmers, Candlish was the ruling spirit in the Free Church. He died Oct. 19, 1873.

**Candy, or Kandy,** a city of Ceylon, near the center of the island, 72 miles N. E. of Colombo. Pop. (Est.) 28,000.

**Canea,** the capital and chief commercial town of Crete, situated on the N. W. coast. It occupies the site of the ancient Cydonia. Pop. 24,399.

**Canebrake,** a colossal reed, which reaches a height of 30 or 40 feet, and forms dense swamp-jungles in marshy places along the banks of the Red river, the Arkansas, the Mississippi, and their tributaries.

**Canes Venatici,** (Latin "the Hunting-dogs," Asterion and Chara), one of the northern constellations added by Hevelius in 1690, between Bootes and Ursa Major.

**Canfield, James Hulme,** an American educator; born in Delaware, O., March 18, 1847; in 1877–1891 he was Professor of History in the University of Kansas, and in 1891–1895 was Chancellor. He then became President of the Ohio State University and in 1899 librarian of Columbia University. Died in 1909.

**Cang, Cangue,** or **Kea,** the wooden collar, weighing from 50 to 60 pounds, and fitting closely round the neck, imposed upon criminals in China.

**Canicula,** the dog-star or Sirius; hence Canincular days, the dog-days.

**Canidæ,** a family of mammals, containing the dogs, wolves, foxes, and jackals.

**Canis Major,** a constellation of the Southern hemisphere, remarkable as containing Sirius, the brightest star.— CANIS MINOR is a constellation in the Northern hemisphere, immediately above Canis Major, the chief star in which is Procyon.

**Canker,** (1) in medicine, a collection of small sloughing ulcers in the mouth. (2) In horticulture, a disease to which fruit-trees are liable. (3) In farriery, a disease in horses' feet causing a discharge of fetid matter from the cleft in the middle of the frog.

**Cankerworm,** a worm or larva destructive to trees or plants.

**Cannel Coal,** a variety of bituminous coal, containing earthy matters, which render it specifically heavier than water. It varies much in appearance. It is very dense and compact, and not easily frangible, breaking with an uneven fracture, and does not soil the fingers. When burning, it splits and crackles, without melting, and leaves 3 or 4 per cent. of ash.

**Cannes,** a seaport of France, on the shore of the Mediterranean, in the Department of Alpes-Maritimes; famous as the place where Napoleon landed when he returned from Elba, March 1, 1815. Pop. 19,500.

**Cannibalism,** the act or practice of eating human flesh by mankind. When America was discovered, cannibalism was found to prevail to a very great extent. It is stated, on excellent authority, to exist in Hayti, and undoubtedly prevails among certain South American tribes. In many parts of Africa, cannibalism is systematically practised.

**Canning, George,** an English orator and statesman; born in London, April 11, 1770; educated at Eton and at Oxford. He was first brought into Parliament by Pitt in 1793, and in 1796 became Under-Secretary of State. In 1797 he projected, with some friends, the "Anti-Jacobin," of which Gifford was appointed editor, and to which Canning contributed the "Knife-grinder" and other poems and articles. In 1798 he supported Wilberforce's motion for the abolition of the slave-trade. In 1807 he was appointed Secretary of State for Foreign Affairs. As British Minister of Foreign Affairs he earnestly advocated the principles embodied in the Monroe Doctrine. April 12, 1827, his appointment to be Prime-Minister was announced. He died in Chiswick, Aug. 8, 1827.

**Cannon, George Q.,** born in Liverpool, England, Jan. 11, 1827; removed to the Salt Lake, where he be-

came a Mormon leader. He was a member of the Legislative Council of Utah in 1865–1866 and 1869–1872, and was a delegate to Congress from 1865 to 1881. At a Constitutional Convention at Salt Lake City in 1872 he was chosen to present the constitution and memorial to Congress for the admission of the Territory into the Union as a State. He died in Monterey, Cal., April 12, 1901. His son, Frank J. Cannon, was elected one of the first United States Senators from Utah, 1896–9.

**Cannon, Joseph Gurney,** an American legislator; born in Guilford, N. C., May 7, 1836; was admitted to the bar in Illinois in 1858; was State Attorney in 1861–68; member of Congress in 1873–91, 1893–1903, 1903–13, and 1915–23; Speaker of the House of four Congresses, 1903–11; and was a stalwart Republican, familiarly known as "Uncle Joe Cannon."

**Cano, Juan Sebastian del,** a Spanish navigator, born in Guetaria, Guipuzcoa, about 1460. He was one of the first to circumnavigate the globe (1522). He died on the Pacific, Aug. 4, 1526.

**Canoe,** a boat made of a hollow trunk of a tree, or of the bark shaped and strengthened. They were originally used by the North American Indians.

**Canon,** in its original sense, a cane or reed used as a measure or rule. Specifically, a law or rule in general. In ecclesiastical history a canon is a book containing the rules of a religious order used in monastic institutions. A list or catalogue of the canonized saints of the Roman Catholic Church. A dignitary of the Church; one who possesses a prebend, or revenue allotted for the performances of divine services in a cathedral or collegiate church.

**Canon,** the Spanish word for tube, funnel, cannon; applied by the Spanish Americans, and hence in North America generally, to long and narrow river gorges or deep ravines with precipitous and perpendicular sides.

**Canonical Hours,** certain stated times of the day appropriated by ecclesiastical law to the offices of prayer and devotion in the Roman Catholic Church.

**Canonization,** a ceremony in the Roman Church, by which deceased persons are declared saints.

**Canon-law,** the body of ecclesiastical law as laid down by the canons. The oldest canons are called Apostolic canons. The canons of the Councils of Nice (A. D. 325), Constantinople (A. D. 381), Ephesus (A. D. 431), and Chalcedon (A. D. 451), obtained civil sanction by decree of Justinian. Afterward papal decrees of various dates were added to the Roman Catholic canon law.

**Canon of Scripture,** the term canon, as applied to the Scriptural writings, has been narrowed in its application to those inspired writings recognized by Christian believers.

**Canossa,** a ruined castle near Reggio, Italy, interesting for its historical associations. The Emperor Henry IV., excommunicated by Gregory VII., humbly waited for three days in its courtyard bareheaded, barefooted and fasting, until the Pope reversed his decision. Hence the term "going to Canossa," meaning to yield to papal wishes or demands.

**Canova, Antonio,** an Italian sculptor, born in 1757; died 1822. He was largely self-taught, and at 15 years of age produced two statues. He excelled in whatever style he chose, and his versatility is shown in the delicate beauty of his famous "Cupid and Psyche" and the rugged strength of his colossal "Hercules throwing Lichas into the Sea."

**Canso, Cape,** the E. extremity of Nova Scotia, at the entrance of Chedabucto Bay. Canso Strait or Gut, 17½ miles long and 2½ in average breadth, separates Nova Scotia from the island of Cape Breton.

**Cantacuzenus,** a Greek princely family, which gave two emperors to Constantinople, and a branch of which has been distinguished in the service of Russia. In 1903, a scion married a granddaughter of General Ulysses S. Grant.

**Canteen,** in military language, a regimental establishment managed by a committee of officers, in barracks or forts, for the sale of liquors, tobacco, groceries, etc. The word is also applied to a flat can or metallic bottle used by soldiers for carrying drinking

water. The sale of liquors in the United States army establishments known as canteens was recently prohibited by law.

**Canterbury,** a city and parliamentary and municipal borough of England in Kent, 55 miles S. E. of London. In the 8th, 9th, 10th, and 11th centuries the city was dreadfully ravaged by the Danes, but at the Conquest its buildings exceeded in extent those of London. The ecclesiastical importance of the place was consummated by the murder of Thomas a Becket in the cathedral. Henry VIII. dissolved the priory in 1539, and ordered the bones of Becket to be burned; and the troopers of Oliver Cromwell made a stable of the cathedral. The cathedral, one of the finest ecclesiastical structures in England, has been built in different ages, the oldest part dating from about 1174. The great tower, 235 feet in height, is a splendid specimen of the Pointed style. Pop. (1921) 26,000.

**Cantharis, or Spanish Fly.** Externally used as a rubefacient in the form of a liniment, also as a vesicant in the form of the common blister.

**Canticle,** certain detached psalms and hymns used in the service of the Anglican Church. The word is also applied to that book of the Old Testament also known as the "Song of Solomon."

**Canton,** called also YANG-CHING, city of rams, a large commercial city and port in the south of China, and capital of the province of Kwangtung, on the N. or left side of the Shukiang, or Pearl river, in a rich alluvial plain, 70 miles N. of Macao and 90 N. W. of Hong-kong. The city is surrounded by walls 25 to 40 feet high, 20 feet thick, with an esplanade inside, 6 miles in circumference; and it is divided by a partition wall running E. and W. into two unequal parts. There are 12 outer gates, four gates in partition wall, and two water gates, shut and guarded by night. The entire circuit, including suburbs, is nearly 10 miles. At the S. W. corner of the suburbs S. of the river, are the Hongs or European quarter, divided from the river by a quay, 100 yards wide. The streets, more than 600, are in general less than 8 feet wide, and very crooked. The chief exports are tea, silk, and cassia; chief imports, cotton, woolen and metal goods. Pop. est. (1921) 950,000.

**Canton,** city and capital of Stark county, O.; on Nimishillen creek and the Baltimore & Ohio and other railroads; 59 miles S. E. of Cleveland; manufactures steel bridges, steel cars, watches, safes, locks, surgical chairs, steel roofing, and farming implements; has a large trade in coal, wheat, corn, and oats. Pop. (1920) 87,091.

**Cantonment,** an indefinite area of land, usually in the suburbs of a town or village, set apart for the training or quartering of a military force. After the United States entered the World War, forty-nine cantonments and camps were established in twenty-three States, the principal ones being named after deceased army officers. These reservations comprised sixteen National Army training camps, sixteen National Guard camps, fourteen Navy camps, two Marine Corps camps, and one embarkation camp. The following gives the names (in *Italics*) and location of the principal cantonments and camps:

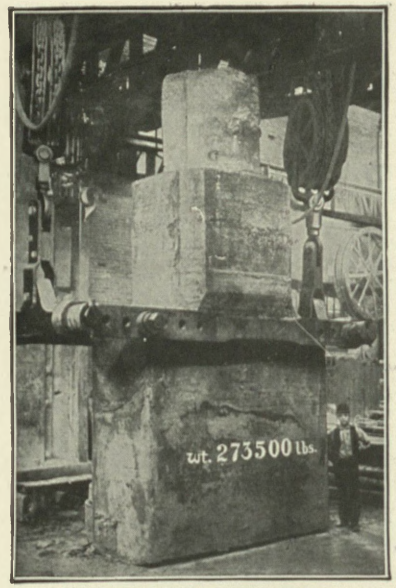
*National Army Training Camps.*—*Devens*, Ayer, Mass.; *Upton*, Yapleank, L. I.; *Dix*, Wrightstown, N. J.; *Meade*, Annapolis Junction, Md.; *Lee*, Petersburg, Va.; *Jackson*, Columbia, S. C.; *Gordon*, Atlanta, Ga.; *Sherman*, Chillicothe, O.; *Taylor*, Louisville, Ky.; *Custer*, Battle Creek, Mich.; *Grant*, Rockford, Ill.; *Pike*, Little Rock, Ark.; *Dodge*, Des Moines, Ia.; *Funston*, Fort Riley, Ark.; *Travis*, Fort Sam Houston, Tex.; and *Lewis*, American Lake, Wash.

*National Guard Camps.*—*Greene*, Charlotte, N. C.; *Wadsworth*, Spartanburg, S. C.; *Hancock*, Augusta, Ga.; *McClellan*, Anniston, Ala.; *Sevier*, Greenville, S. C.; *Wheeler*, Macon, Ga.; *McArthur*, Waco, Tex.; *Logan*, Houston, Tex.; *Cody*, Deming, N. M.; *Doniphan*, Fort Sill, Okla.; *Bowie*, Fort Worth, Tex.; *Sheridan*, Montgomery, Ala.; *Shelby*, Hattiesburg, Miss.; *Beauregard*, Alexandria, La.; *Kearny*, Linda Vista, Cal.; and *Frémont*, Palo Alto, Cal.

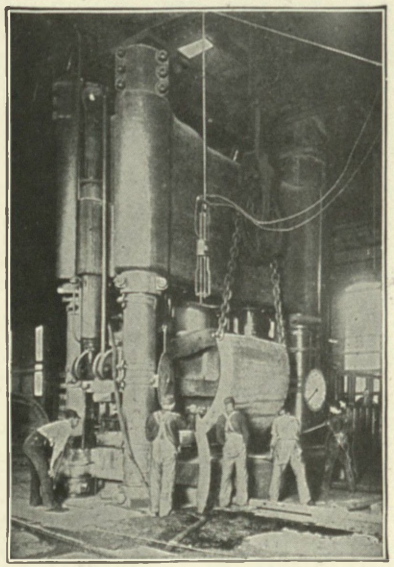
*Embarkation Camp.*—*Merritt*, Dumont, N. J.



INTERIOR VIEW EMPEROR'S TEMPLE, CANTON, CHINA

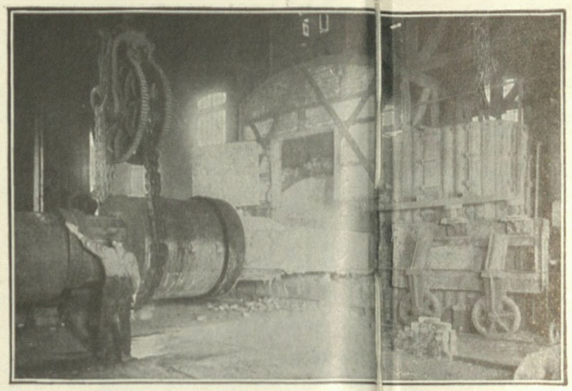



A COMPRESSED STEEL INGOT.

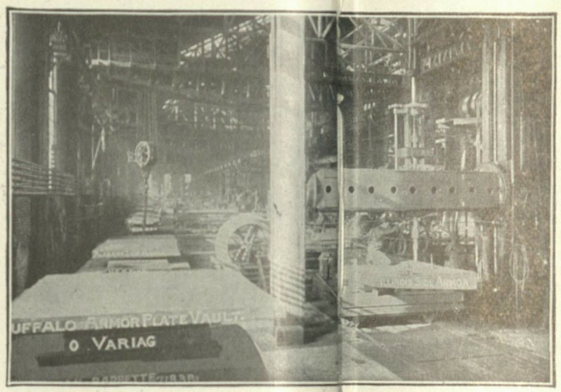


BENDING AN ARMOR PLATE FOR A CONNING TOWER.

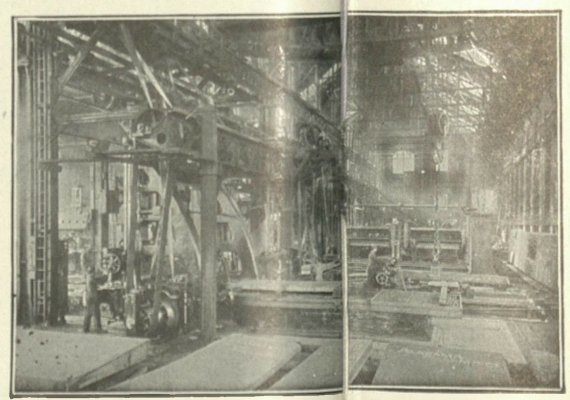
# MAKING AND TESTING



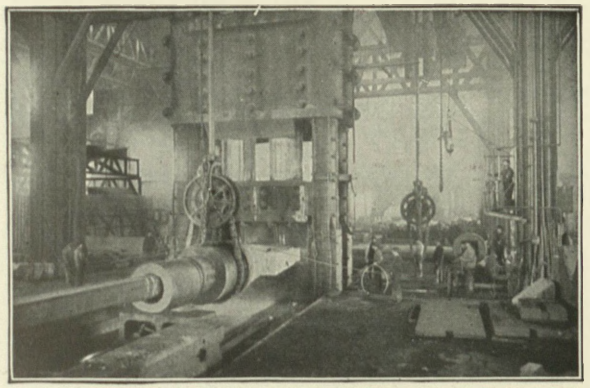
HEATING AN ARMOR PLATE INGOT.



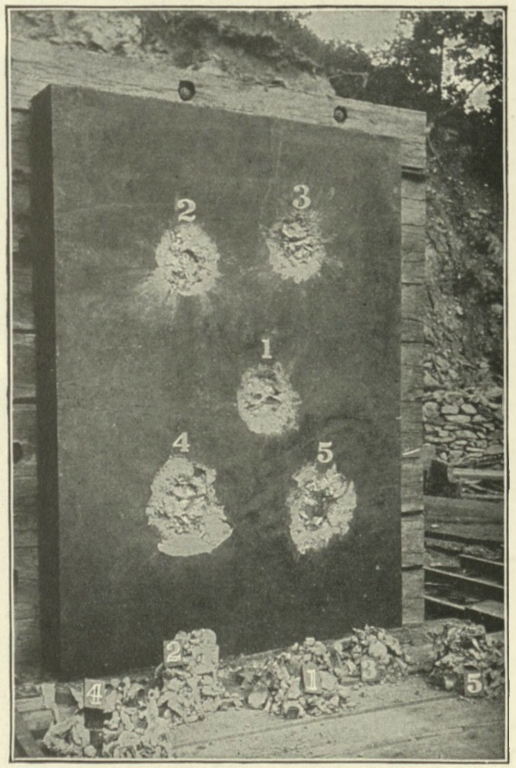

MACHINING AN ARMOR PLATE—DRILLING THE BOLT HOLES.



PLANING AN ARMOR PLATE.

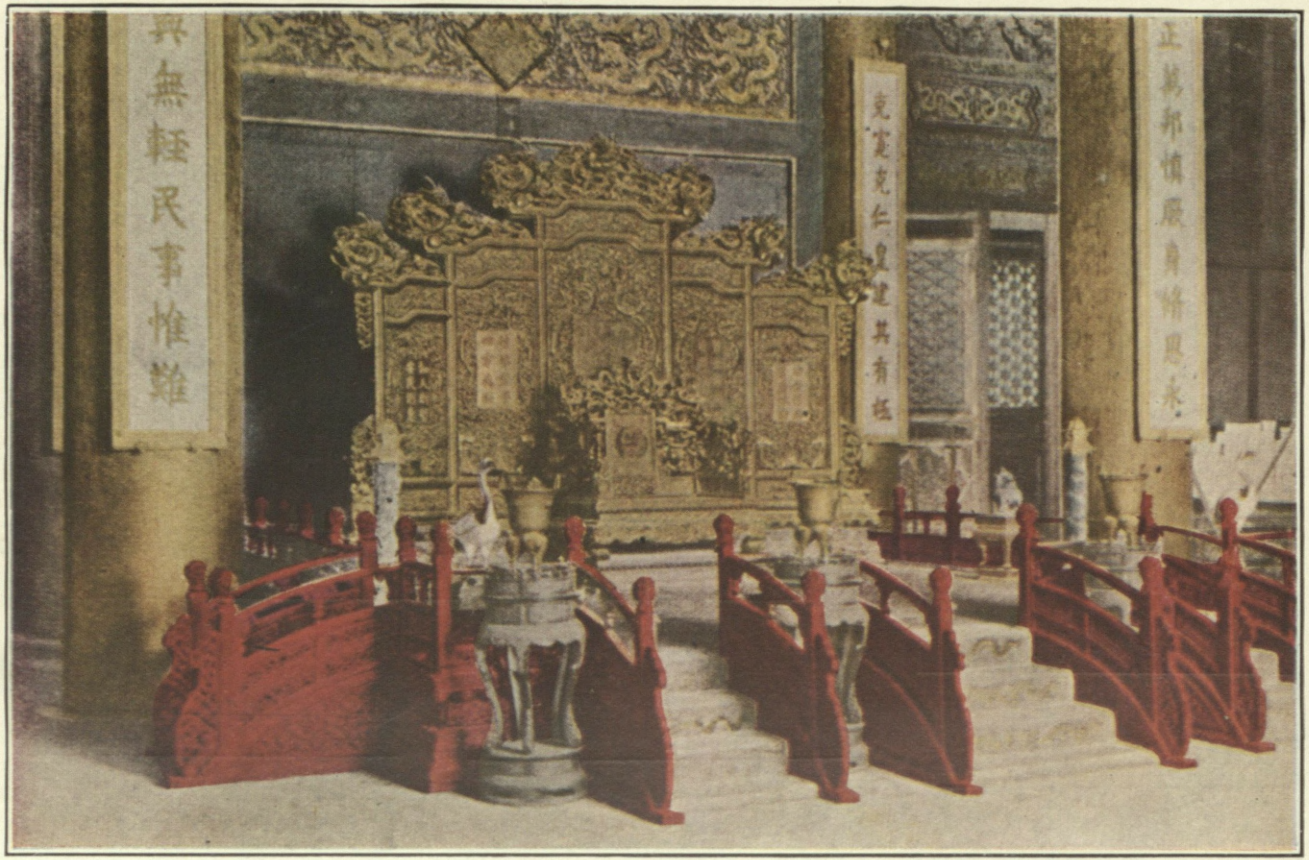


FORGING AN ARMOR PLATE.




TESTING AN ARMOR PLATE.

# STEEL ARMOR PLATES.



MANCHU EMPEROR'S DRAGON THRONE—PEKING, CHINA

**Cap,** in ships, a strong piece of timber placed over the head or upper end of a mast, having in it a round hole to receive the top or top-gallant masts.

**Cape Breton,** an island of the Dominion of Canada, separated from Nova Scotia, to which province it belongs, by the narrow Gut or Strait of Canso; area 3,120 square miles. Timber, fish, and coal are exported. The island belonged to France from 1632 to 1763, and Louisburg, its capital, was long an important military post. It was separate from Nova Scotia between 1784 and 1820. Chief town, Sydney. Pop. (Est.) 125,000.

**Cape Coast Castle,** a settlement of Great Britain in the Gold Coast Colony, in Upper Guinea, 315 miles W. of Lagos. The place lies in a chasm, and is defended by the great castle near the water's edge, and by three small forts on the hills behind. Ceded by the Dutch to the English in 1665, Cape Coast Castle, from 1672, was possessed by several British African companies till 1843, when it was taken over by government. Pop. 11,-364.

**Cape Cod,** a peninsula on the S. side of Massachusetts Bay; 65 miles long and from 1 to 20 broad. A ship canal was completed here in 1916, connecting Buzzards Bay and Barnstable Bay, at a cost of $12,000,000.

**Cape Colony,** former name of a British colony at the S. extremity of Africa; since 1910 a province in the Union of South Africa, renamed CAPE OF GOOD HOPE COLONY; area, 276,-995 square miles; pop. (1921) 2,781,-185; chief town, Cape Town, pop. (1921) 207,404.

The province is better adapted for pasturage than for agriculture. All kinds of vegetables and pot herbs, and all the fruits of temperate climates thrive excellently, and fruits, dried and preserved, are exported. The vine is cultivated, and some excellent wines are made.

Sheep-rearing is the most important industry, and wool is the chief export (although surpassed in value by diamonds). Cattle-breeding is carried on to some extent, especially along the coasts and in the E. and N. districts. There are no manufactures of any importance.

The European inhabitants consist in part of English, Scottish, and Irish settlers and their descendants, but the majority are of Dutch origin, while there are also a considerable number of German origin. The colored people are chiefly Hottentots, Kaffirs, Bechuanas, Basutos, Griquas, Malays, and a mixed race, the offspring of black women and white fathers. The province is now divided into 119 magisterial districts, 86 fiscal divisions, 123 municipalities, and 79 village management boards. Each division has a council, which looks after roads, boundaries, and beacons, elected triennially by land owners, and each municipality is governed by a mayor or chairman and councillors. There are also 120 school districts and education is compulsory for youth of European extraction.

The Dutch, who had early fixed upon the Cape as a watering-place for their ships, first colonized it under Van Riebeek, in 1652. It was captured by the British in 1795, restored at the peace of Amiens (1802), and again taken in 1806. From this time it has remained in the possession of Great Britain, to which it was formally assigned in 1815, along with Dutch Guiana. Subsequently the area of the colony was gradually enlarged by the annexation of surrounding districts. See SOUTH AFRICA, UNION OF.

**Cape Fear River,** a river of North Carolina; navigable for steamboats for 120 miles from its mouth.

**Cape Finistere,** the westernmost point of Spain, in the province of Corunna, extending S. W. into the Atlantic.

**Cape Hatteras,** a dangerous cape on the coast of North Carolina off which many wrecks have occurred.

**Cape Haiti,** a town on the N. coast of Haiti. It has an excellent harbor and a pop. of about 30,000.

**Cape Horn,** or **The Horn,** the extremity of an island of the same name, forming the extreme S. point of South America. It is a dark, precipitous headland, 500 to 600 feet high, running far into the sea. Navigation round it is dangerous on account of frequent tempests.

**Capella,** the name of a star situated in the constellation Auriga, and is of remarkable brilliancy.

**Cape Matapan,** a promontory of Greece, forming the S. extremity of the Peloponnesus.

**Capen, Elmer Hewitt,** an American educator, born in Stoughton, Mass., April 5, 1838; graduated at Tufts College, and became a lawyer and later a Universalist clergyman. From 1875 he was president of Tufts College. He died Mar. 22, 1905.

**Capen, Nahum,** an American historical writer; born at Canton, Mass., 1804; was postmaster of Boston, Mass.; introduced street letter-box collections. He died Jan. 4, 1886.

**Cape Nome,** a cape and center of a remarkably rich gold mining region, on the S. face of the peninsular projection of Alaska, which separates Kotzebue Sound on the N. from Bering Sea on the S., and terminates on the W. in Cape Prince of Wales.

In a direct line of navigation, it lies about 2,500 miles N. W. of Seattle, and 175 miles S. E. of Siberia. The nearest settlement of consequence to it prior to 1899 was St. Michael, 100 miles to the S. E., but that year various mining camps built themselves up in closer range and reduced the distance some 60 miles. The Nome district as settled centers about the lower course of the Snake river, which discharges into the sea at a position 13 miles W. of Cape Nome proper.

The first discovery of gold was made in September, 1898, but it was not until July, 1899, that the beach gold was discovered. In the middle of October following Nome City had 5,000 inhabitants. The yield of gold has been very great, and the district is being extensively exploited. Pop. (Est.) 3,000.

**Cape Nun,** a headland on the W. coast of Morocco, extending into the sea at the S. W. extremity of the Atlas range.

**Cape of Good Hope,** a promontory near the S. extremity of Africa, at the termination of a small peninsula extending S. from Table mountain, which overlooks Cape Town. Bartholomew Diaz, who discovered the Cape in 1487, called it Cape of Storms; but John II. of Portugal changed this to its present designation. It was first doubled by Vasco de Gama in 1497. Here is one of the principal astronomical institutions of the world.

**Cape Ortegal,** a rugged promontory forming the N. extremity of Spain, extending into the Bay of Biscay.

**Caper,** the unopened flower-bud of a low trailing shrub which grows in the countries bordering the Mediterranean. Pickled in vinegar and salt they are much used as a condiment.

**Capercailzie,** a species of grouse, of large size, formerly indigenous in the highlands of Scotland, but which became extinct, and had to be reintroduced from the Scandinavian Peninsula.

**Cape River, or Rio de Segovia,** a river of Nicaragua, which after a generally N. E. course of nearly 300 miles enters the Caribbean Sea, after forming part of the boundary between Honduras and Nicaragua.

**Capernaum,** a city of Galilee in Palestine, about 70 miles N. by E. of Jerusalem, situated on the N. W. shore of the Sea of Tiberias. It was here that Jesus Christ began his public ministry; and in its neighborhood he delivered the Sermon on the Mount.

**Capers, Ellison,** an American clergyman; born in Charleston, S. C., Oct. 14, 1837. He entered the Protestant Episcopal ministry in 1867, and was chosen bishop of South Carolina in 1893. He died April 22, 1908.

**Caperton, William Banks,** an American naval officer; born in Spring Hill, Tenn., June 30, 1855; was graduated at the U. S. Naval Academy in 1875; became captain in 1908, and rear-admiral in 1913; commanded the Atlantic Reserve Fleet in 1913–14; was sent to Haiti to suppress disorders in 1914–15; and in 1917 was given command of the Pacific fleet.

**Cape St. Vincent,** the S. W. point of Portugal.

**Cape Town,** capital of the Cape of Good Hope Colony, South Africa; became the seat of the Parliament of the new Union of South Africa in 1910. Pop. (1921) 207,404.

**Cape Verde,** the most westerly headland of Africa, jutting out into the Atlantic Ocean, between the rivers Gambia and Senegal.

**Cape Verde Islands,** a group in the North Atlantic Ocean, belonging to Portugal, about 370 miles W. of

Cape Verde, which, as well as the islands, derives its name from the greenish tinge given to the adjoining sea by the abundance of sea-weed. The group consists of 14 islands, besides islets and rocks, having a united area of about 1,480 square miles. They are in general, mountainous, rocky, and very ill supplied with water; all are evidently of volcanic origin. The climate is exceedingly unhealthy, and droughts are of frequent occurrence. The pop. (Est.) 150,000 is a mixed race of Portuguese and negroes. These islands were discovered in 1450. During the early part of the war between the United States and Spain (1898), the islands were made the rendezvous of the Spanish fleet under Cervera.

**Cape Wrath,** a pyramidal promontory of unrivaled wildness and grandeur, the N. W. extremity of Scotland and running out into the Atlantic.

**Capillaries.** The tubes which convey the blood from the left side of the heart to the various parts of the body are called arteries, while those which return it to the right side of the heart are known as veins. The name capillaries is given to the minute vessels which form the connection between the terminal branches of the arteries and the commencement of the trunks of the veins.

**Capita,** an expression of frequent occurrence in laws regulating the distribution of the estates of persons dying intestate. When all the persons entitled to shares in the distribution are of the same degree of kindred to the deceased person, and claim directly from him in their own right, and not through an intermediate relation, they take per capita, that is, in equal shares, or share and share alike.

**Capital,** the surplus of individual or national wealth which remains after current necessities have been met. It consists of what are popularly called savings. It is available for the employment of new labor, and if this be done judiciously it will produce a further surplus; or, in other words, the capital will increase. In every well ordered community it tends to do so indefinitely. Capital and labor mutually require each other, and are not natural foes, but natural friends.

**Capital Punishment.** the punishment of crime by death. In the United States the method is usually by hanging, but in recent years a number of States have adopted electrocution. The punishment for murder in the first and second degrees varies in the different States and includes hanging, electrocution, shooting (by choice), life imprisonment, limited imprisonment, death or life imprisonment at the discretion of the sentencing judge. An insane person and a pregnant woman are immune from capital punishment while the condition lasts.

**Capitation-grant,** a grant of so much per head; specifically applied to grants from government or governing bodies to schools according to the number of scholars in attendance, or to the number of those passing a certain test examination, and to volunteer companies on account of such members as reach the stage of "efficients."

**Capitation-tax,** a tax or impost upon each head or person. Generally called a poll-tax in the United States.

**Capito, or Kopfel, Wolfgang Fabricus,** an Alsatian reformer; born in Haguenau in 1478, entered the Benedictine order, and became Professor of Theology at Basel, He approved of Luther's action, but nevertheless in 1519 entered the service of Albert of Mainz; and it was not till some years later that he finally declared for the Reformation. He died in Strasburg in November, 1541.

**Capitol.** A Roman height on which was erected a famous temple of Jupiter. The word is also applied to the building in which the Congress of the United States holds its sessions.

The S. E. corner-stone of the Capitol was laid Sept. 18, 1793, "by Brother George Washington, assisted by the Worshipful Masters and Free Masons of the surrounding cities, the military, and a large number of people." The N. wing was ready for occupancy in 1800, the S. wing in 1808; but both were partially destroyed by the British in 1814. The foundation of the main building was laid in 1818 (March 24), the restoration of the wings having been commenced three years earlier; and the whole was com-

pleted in 1827. July 4, 1851, the corner-stone of the S. extension was laid by President Fillmore, and this was finished in 1857. The N. extension was occupied by the Senate in 1859. The present dome, commenced in 1855, was completed eight years later, and Dec. 12, 1863, the American flag floated from its summit. The cost of the entire building was $13,000,000: main building, $3,000,000; dome, $1,000,000; extensions, $8,000,000; miscellaneous items, $1,000,000. The length of the entire building is 751 feet 4 inches; its greatest breadth, 324 feet, and it covers a little over 3½ acres. The distance from the ground to the top of the dome is 307½ feet; the diameter of the dome, 135½ feet. The buildings in which state legislatures meet are also called capitols, but in New England usually "State Houses."

**Capitoline Games,** annual public sports, instituted at Rome 387 B. C., in honor of Jupiter Capitolinus, and to commemorate the preservation of the city from the Gauls.

**Capiz,** a province of Panay (Visayas), Philippine Islands; on the N. coast; area, 1,661 square miles; pop. (Est.) 225,000; capital, Capiz; pop. 18,525.

**Capo d'Istrias, Ioannes Antonios, Count,** was born in Corfu, Feb. 11, 1776; president of the Greek republic from 1828 to 1831. He devoted himself to political life, and in 1809 entered the diplomatic service of Russia. Here his policy tended to the separation of Greece from Turkey. In 1828 he entered on a seven years' presidency of Greece; but imbued as he was with Russian ideas, he aroused discontent by his autocratic measures; and on Oct. 9, 1831, he was assassinated in a church at Nauplia.

**Capote, Domingo Mendez,** a Cuban statesman; born in Cardenas in 1863; spent his youth there; was graduated at the University of Havana, and became one of the best known lawyers in Cuba. Subsequently he was a professor in the University of Havana for many years. In December, 1895, he joined the insurgents under Gen. Maximo Gomez; became a Brigadier-General; and was appointed civil governor of Matanzas and of Las Villas. In November, 1897, he was elected Vice-President of the Cuban Republic. When the Cuban Constitutional Convention appointed a commission of five members to confer with President McKinley and Secretary Root concerning the future relations of the United States and Cuba, he became its leader. The conference was held in Washington, D. C., in April, 1901.

**Cappadocia,** in antiquity, one of the most important provinces in Asia Minor, the greater part of which is included in the modern province of Karaman. It was conquered by Cyrus, and was ruled by independent kings from the time of Alexander the Great until 17 A. D., when it became a Roman province.

**Capri,** an island in the beautiful Gulf of Naples, remarkable for several remarkable caverns or grottoes in its steep rocky coast.

**Capricornus** "the Goat," one of the 12 signs of the Zodiac, between Sagittarius and Aquarius; also the corresponding zodiacal constellation, one of Ptolemy's original 48.

**Caprimulgidæ,** the goat-suckers, a family of birds, nearly allied to the swallow tribe.

**Caprivi, Georg Leo, Graf von** sometimes called CAPRIVI DE CAPRARA DE MONTECUCULI, a German soldier and statesman; born in Berlin, Feb. 24, 1831; entered the army in 1849; and in 1883 he became commander of his old army corps. Hence he was removed, on the fall of Bismarck, in 1890, to become Imperial Chancellor and Prussian Prime Minister. His principal measures were the army bills of 1892 and 1893, and the commercial treaty with Russia in 1894, in which year he resigned. He died at Skyren, Feb. 6, 1899.

**Capron, Allen Kissam,** an American military officer (son of Allyn Capron); born in Brooklyn, N. Y., June 24, 1871. He enlisted as a private (1890), and rose to a second lieutenancy (1893), joining the "Rough Riders" on the outbreak of the war with Spain. He was made a captain for bravery, and was killed at Las Guasimas, Cuba, June 24, 1898.

**Capron, Allyn,** an American military officer; born in Tampa, Fla., Aug. 27, 1846. He was a son of Capt.

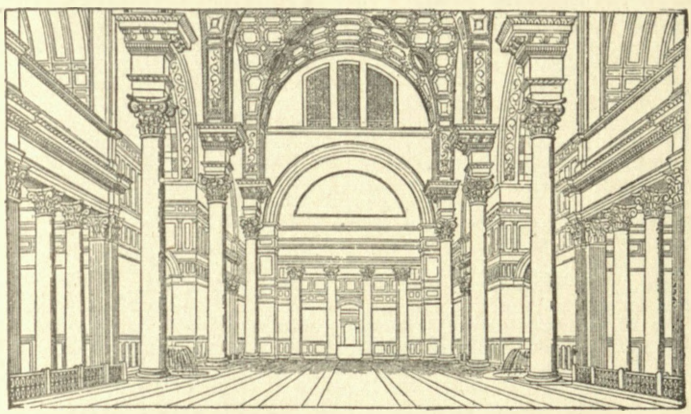
Erastus A. Capron, killed in the Mexican war, and was graduated at West Point in 1867. He rose to the rank of captain (1888), and in the war with Spain led an advance at the battle of Santiago. He further distinguished himself at El Caney. He contracted typhoid in Cuba and died at Fort Myer, Va., Sept. 18, 1898.

**Capsicum,** a genus of plants bearing membranous pods containing several seeds, noted for their hot, pungent qualities.

**Capstan,** a strong, massive apparatus of wood or iron made to revolve, and thus raise a heavy weight by winding a rope round it. It is especially used on shipboard for weighing the anchor.

**Capuchin Monkey,** a name given to various species of South American monkeys of the genus Cebus. The hair of their heads is so arranged that it has the appearance of a capuchin's cowl, hence the name.

**Capuchins,** a branch of the Franciscan order of monks, founded by Matthew de Baschi, an Italian. So called from their peculiar capuche or cowl — a pointed hood attached to the ordinary Franciscan coat, and said to have been worn by St. Francis himself.



HALL IN BATHS OF CARACALLA.

**Captain,** one who is at the head or has authority over others, especially: (1) The military officer who commands a company, whether of infantry, cavalry, or artillery. (2) An officer in the navy commanding a ship of war. (3) The master of a merchant vessel.

**Capua** (ancient Capoa or Capua), a strongly fortified city of Southern Italy, on the left bank of the Volturno, in a fine plain 18 miles N. of Naples. The city has a citadel, the work of Vauban, and is reckoned one of the keys of the kingdom. The ancient Capua was situated about 2½ miles from the modern city. The remains of its amphitheatre, said to have been capable of containing 100,000 spectators, and of some of its tombs, attest its former splendor and magnificence. It was destroyed by the Saracens, A. D. 840.

**Capulets and Montagues,** the English spelling of the names of the Cappelletti and Montecchi, two noble families of Northern Italy, according to tradition of Verona, chiefly memorable from their connection with the legend on which Shakespeare has founded his tragedy of "Romeo and Juliet."

**Carabobo,** a State of Venezuela, between the Caribbean Sea and the State of Zamora; area, 2,974 square miles; population, 198,021, mostly inhabiting the fertile depression of Lake Valencia, where large crops of coffee, sugar, and excellent cacao are grown Capital, Valencia.

**Caracal,** a species of lynx, of a reddish-brown color, with black ears, tipped with long black hair. It is a native of Africa, India, Persia, and Turkey.

**Caracalla, Marcus Aurelius Antoninus,** eldest son of the Emperor Severus, was born in Lyons, A. D. 188. On the death of his father he succeeded to the throne with his brother, Antoninus Geta, whom he speedily murdered. To effect his own security upwards of 20,000 other victims were butchered. He was himself assassinated by Macrinus, the pretorian prefect, near Edessa, in 217. Among the buildings of Caracalla in Rome, the baths—Thermæ Caracallæ—near Porta Capena, were most celebrated, and their ruins are still magnificent.

**Caracas,** the capital of the Republic of Venezuela and of the Federal District, 6 miles (24 by rail) S. of La Guaira, its port. Built on the S. slope of the Avila (8,635 feet), it is 3,025 feet above the tide-level. The streets, built at right angles, are broad and well paved. There are a handsome promenade and numerous public parks and gardens; excellent water and gas plants; street railways; and the termini of several steam railways. Population 72,429.

**Caracci, Ludovico, Agostino,** and **Annibale,** born about the middle of the 16th century, were three of the first painters of Italy, kinsmen, fellow-students, and co-laborers, natives of Bologna, and founders of the Bolognese School.

**Caraccioli, Francesco,** an Italian admiral, born in Naples about 1748. When Ruffo took Naples in 1799 Caraccioli was arrested, and, contrary to the terms of capitulation, was condemned to death, and hanged at the yard-arm of a Neapolitan frigate, Lord Nelson consenting to his execution, June 29, 1799.

**Caractacus,** a king of the Britons, for nine years (43–50 A. D.) warred gallantly against the Roman invaders, but at length was completely overthrown by Ostorius in a battle near the border of South Wales. His wife and daughters fell into the hands of the victors, and his brothers surrendered. Caractacus himself fled to Cartismandua, queen of the Brigantes, who delivered him up. He was carried to Rome, 51 A. D., and exhibited in a triumphal procession by the Emperor Claudius, who was greatly impressed by his dauntless bearing and language. According to tradition he died in Rome about A. D. 54.

**Caramel,** the name of a certain preparation of candy.

**Carat,** a weight of 3½ grains; the tweny-fourth part of an ounce. It is used by jewelers to express the fineness of gold, the whole mass being supposed to be divided into 24 parts, and said to be so many carats fine, according to the number of twenty-fourth parts of pure gold contained in it. Twenty-four carat means all gold, 18 carat three-quarters gold.

**Carausius,** a Roman general, a native of Batavia. He was sent by the Emperor Maximilian to defend the Atlantic coasts against the Franks and Saxons; but foreseeing impending disgrace, he landed in Britain and had himself proclaimed emperor by his legions (287 A. D.). In this province he was able to maintain himself six years, when he was assassinated at York by one of his officers named Allectus (293 A. D.).

**Caravaggio, Michel Angelo Amerighi,** or **Merighi da,** a celebrated painter, born in Caravaggio in 1569. He died near Rome in 1609.

**Caravan,** a Persian word used to denote large companies which travel together in Asia and Africa for the sake of security from robbers, having in view, principally, trade or pilgrimages. Camels are used as a means of conveyance on account of their remarkable powers of endurance.

**Caravansary,** or **Caravansera,** a large public building, or inn, for the reception and lodgment of caravans in the desert. Though serving instead of inns, there is this essential difference between them, that the traveler finds nothing in the caravansary for the use either of himself or his cattle, but must carry all his provisions and necessaries with him. Caravansaries are also numerous in cities, where they serve not only as inns, but as shops, warehouses, and even exchanges.

**Caravel,** the name of different kinds of vessels, particularly a small

ship used by the Spaniards and Portuguese in the 15th and 16th centuries for long voyages. It was in command of three caravels that Columbus crossed the Atlantic and discovered America.

**Caraway,** a plant valued and cultivated for the sake of the well-known aromatic "caraway seeds" which it bears; these being, however, in strictness not seeds, but the mericarps, into which the fruit in this order splits when ripening. Caraways are chiefly used entire as a spice by bakers and confectioners.

**Carbide,** a compound formed by the union of carbon with an element, as iron or hydrogen.

**Carbine,** a fire-arm used by cavalry and artillery, shorter in the barrel than the ordinary musket or rifle. It was used by light cavalry as early as the 16th century.

**Carbineers,** or **Carabineers,** formerly light horsemen, used chiefly to watch and harass the enemy, defend narrow passes, and act as skirmishers.

**Carbolic Acid,** obtained by the dry distillation of salicylic acid. It is also formed by the dry distillation of coal, in the coal-tar oil. It is used as a disinfectant, and to preserve meat, etc. Taken internally it soon proves fatal, and its use should therefore be carefully guarded.

**Carbon,** the name of the element which exists, more or less pure, in charcoal, coke, coal and such bodies.

**Carbonari,** the name given to a secret political association in Italy, its professed aim being the reorganization and reform of the government of that country.

**Carbondale,** a city in Lackawanna county, Pa.; on the Lackawanna river and the Delaware & Hudson and other railroads; 16 miles N. E. of Scranton; is noted for its great deposits of anthracite coal, its extensive mining interests, and its manufactures of silk goods, chemicals, and machinery. Pop. (1920) 18,640.

**Carboniferous,** a term applied to the extensive and thick series of strata with which seams of paleozoic coal are more or less immediately associated. It is applied as well to that great system of formations which yield our main supply of coal, or to some divisions of that system, such as the Carboniferous limestone and the Carboniferous slates. It is also applied to the fossils found in any stratum belonging to the system.

**Carborundum,** an artificial abrasive, composed of carbon and clay fused together at a high temperature.

**Carboy,** a large and somewhat globular bottle of green glass protected by an outside covering of wickerwork or other material, for carrying vitriol or other corrosive liquid.

**Carbuncle,** a beautiful gem of a deep-red color with a mixture of scarlet, found in the East Indies. When held up to the sun it loses its deep tinge, and becomes exactly the color of a burning coal. The carbuncle of the ancients is supposed to have been a garnet.

**Carbuncle,** in surgery, an inflammation of the true skin and tissue beneath it akin to that occurring in boils. It is more extensive than the latter, and instead of one has several cores. It is associated with a bad state of general health, from which condition its danger arises, for it may threaten life by exhaustion or blood poisoning.

**Carburetted Hydrogen,** the name given to two compounds of carbon and hydrogen, one known as light carburetted hydrogen, and the other as olefiant gas.

**Carcajou,** a species of badger found in North America.

**Carcanet,** a necklace or collar of jewels.

**Carcass,** in military language, an iron case, with several apertures, filled with combustible materials, which is discharged from a mortar, howitzer, or gun, and intended to set fire to buildings, ships, and wooden defenses.

**Card,** an instrument for combing, opening, and breaking wool, flax, etc., and freeing it from the coarser parts and from extraneous matter. It is made by inserting bent teeth of wire in a thick piece of oblong board to which a handle is attached.

**Cardamine,** a pretty meadow plant, with large pale lilac flowers.

**Cardamoms,** the aromatic capsules of different species of plants of the natural order gingers employed in medicine as well as an ingredient in sauces and curries.

**Cardboard,** pasteboard paper stiffened by several layers being joined together.

**Cardenas,** a seaport of Cuba, on the N. coast, 75 miles E. of Havana, with which it is connected by rail. It has a good harbor, and exports sugar. Pop. (1907) 24,280, mostly whites. During the blockade of the Cuban coast in the war between the United States and Spain a severe engagement took place here on May 11, 1898.

**Cardia,** the heart; also the upper orifice of the stomach, called, on account of its vicinity to the heart, by the same Greek name.

**Cardiff,** ("the city on the Taff"), a municipal and parliamentary borough and seaport, the county town of Glamorganshire, Wales, situated at the mouth of the Taff on the estuary of the Severn. It is a rapidly increasing town, and the principal outlet for the mineral produce and manufactures of South Wales. Iron shipbuilding is carried on, and there are iron and other works on a large scale. Pop. (1921) 200,262.

**Cardiff Giant,** the name given to a rude statue 10½ feet high, dug up, in 1869, at Cardiff, N. Y., and exhibited for months as a petrifaction. The persons who thus deluded the public at last confessed that the "Giant" had been cut from a block of gypsum quarried at Fort Dodge, Ia., sculptured at Chicago, conveyed to Cardiff, and there buried and "accidentally discovered."

**Cardigan, James Thomas Brudenell,** seventh Earl of, born in Hampshire, Oct. 16, 1797; sat in the House of Commons from 1818 to 1837, when he succeeded his father. He entered the army in 1824, and rapidly bought himself into the command of the 15th Hussars, which he resigned in 1833, on the acquittal of an officer whom he had illegally put under arrest. He commanded a cavalry brigade under Lord Lucan in the Crimea, and led the famous charge of the Six Hundred at Balaklava. He was inspector-general of cavalry. 1855–1860, and died in Deene Park, March 28, 1868.

**Cardigan Bay,** a semicircular bend at St. George's Channel, on the W. coast of Wales, 54 miles wide from N. to S., and 35 miles deep, with a sweep of coast of 130 miles.

**Cardinal,** one of the body of counsellors of the Pope who, next to him, hold the highest dignity in the church. According to the present law the appointment of cardinals rests with the Pope, who generally consults the existing cardinals, and often receives proposals from secular governments. The cardinals in Conclave elect the new Pope, have constant access to him, and form his chief council. They have a vote at general councils, and since the 13th century, precedence over all other members. They have had since Urban VIII. the title of "Eminence." The body of cardinals is called the Sacred College. Their insignia are the red cardinal's hat, which is given them by the Pope, and not worn, but suspended in the church of their title, and finally buried with them; the red biretta, the sapphire ring, the mitre of white silk, etc. If a cardinal holds an episcopal see, he must reside there; otherwise he must not leave Rome without permission. At the head of the college of cardinals stands the dean, who is usually Bishop of Ostia and senior of the cardinal bishops. It is he who consecrates the newly-elected Pope, if not already a bishop. In the United States the first cardinal was McCloskey, of New York (1875); the second, Gibbons, of Baltimore (1886); the third, Farley, of New York (1911); the fourth, O'Connell of Boston (1911); the fifth, Dougherty, of Philadelphia (1921); the sixth, Mundelein, of Chicago (1924); the seventh, Hayes, of New York (1924). America now has four cardinals, the greatest number this country has ever had at one time.

**Cardinal Points,** the N., S., E., and W. points of the horizon; the four intersections of the horizon with the meridian and the prime vertical circle.

**Cardinal Virtues,** or **Principal Virtues,** in morals, a name applied to justice, prudence, temperance, and fortitude.

**Carding,** the process wool, cotton, flax, etc., undergo previous to spinning to lay the fibers all in one direction, and remove all foreign substances.

**Carditis,** inflammation of the heart substance.

**Cardoon,** a perennial plant belonging to the same genus as the artichoke, and somewhat resembling it. It is a native of Canada.

**Cards,** oblong pieces of pasteboard, inscribed with certain figures and points, and used in various games of skill and hazard. The origin of this invention is obscure. An immense variety of games are played with cards, some involving chance only, some combining chance and skill, the best of them furnishing very agreeable and intellectual amusement.

**Carducci, Giosue,** an Italian poet and philologist, born in Valdicastello, Tuscany, July 27, 1836. He was Prof. of Literature at Bologna Univ. from 1860. He died Feb. 15, 1907.

**Carew, Thomas,** an English poet; born in 1598. He stood high in favor with Charles I., and was an intimate friend of the greatest poets and scholars of his time. He died in 1639.

**Carey, Henry Charles,** an American economist, born in Philadelphia, Dec. 15, 1793; trained in his father's publishing house, he accumulated a competence from the business and retired to devote himself to study. The "Essay on the Rate of Wages" (1836) and "The Principles of Political Economy" (1837–1840) won him an authoritative international position. He died in Philadelphia, Oct. 13, 1879.

**Carey, Mathew,** an American publisher and prose writer, born in Ireland, Jan. 28, 1760. The best known of his political writings was his "Olive Branch" (1814). It was an effort to promote harmony among political parties during the War of 1812. It passed through ten editions. In 1819 he published his "Irish Vindications," and in 1822, "Essays on Political Economy." He died in Philadelphia, Pa., Sept. 16, 1839.

**Carey, William,** an English Oriental scholar and missionary, born in Northamptonshire, Aug. 17, 1761. He was early apprenticed to a shoemaker, but having a natural turn for languages, and zeal for the spread of the Gospel, he acquired Latin, Greek, and Hebrew, and likewise studied theology. In 1786 he became pastor of a Baptist congregation at Moulton, and in 1787 was appointed to a similar situation in Leicester. In 1793 he sailed for the East Indies as a Baptist missionary, and in 1800, in conjunction with Marshman, Ward, and others, he founded the missionary college at Serampore. Here he had a printing press, and issued various translations of the Scriptures. His first work was a "Bengali Grammar," and later, under his direction the whole Bible was translated into 6, and the New Testament into 21 Hindustani dialects. He was long professor of Sanskrit, Mahratta, and Bengali, in Calcutta. He died in Serampore, India, June 9, 1834.

**Carhart, Henry Smith,** an American scientist, born in Coeymans, N. Y., March 27, 1844. He was graduated at Wesleyan University in 1869, and since then has taught physics and chemistry. Since 1886 he has been Professor of Physics at the University of Michigan.

**Caria,** a country of Asia Minor, whose boundaries have been dissimilar in different ages. Its chief town was Halicarnassus.

**Cariacou,** the Virginia deer. It is somewhat smaller than the common stag.

**Cariama,** a bird, a native of Brazil and Paraguay. The head is crested.

**Carib,** the name given by the early European navigators to the inhabitants or aborigines found on the smaller of the West India Islands, and also inhabiting some part of the adjacent American continent. The Spaniards, finding them always a bold and determined enemy, finally expelled all but a mere remnant from their native possessions. Those who escaped the Spanish sword sought refuge in that part of Southern America near the mouth of the Orinoco, except a few whom the English removed and landed on the island of Ruatan, in the Bay of Honduras. The Carib have always been distinguished from the rest of the American peoples by their athletic stature, firmness, courage, and resolution.

**Caribbean Sea,** the grandest inlet of the Western hemisphere, separated from the Gulf of Mexico by Yucatan, and from the Atlantic Ocean by the great arch of the Antilles.

**Caribbees,** or **Lesser Antilles,** usually divided into the Windward and Leeward Islands, a section of the West India Islands.

**Cariboo,** or **Caribou,** an animal, the American Woodland Reindeer, the Attehk of the Cree, and Tantseeah of the Copper Indians. It is employed by the Laplanders to draw their sledges.

**Carica,** a genus of plants which contains about ten species, all natives of tropical America.

**Caricature,** a representation of the qualities and peculiarities of an object, but in such a way that beauties are concealed and peculiarities or defects exaggerated, so as to make the person or thing ridiculous, while a general likeness is retained.

**Caries,** a disease of bone analogous to ulceration in soft tissues. The bone breaks down into unhealthy matter, which works its way to the surface and bursts. Caries of the teeth is decay of the dentine or body of the tooth.

**Carillon,** a species of chime, played by hand or clockwork on a number of bells, forming a complete series or scale of tones or semi-tones, like those of the organ or harpsichord.

**Carinthia,** a W. duchy or province of Austria, on the borders of Italy; area, 3,989 square miles. It is extremely mountainous, generally sterile, and one of the most thinly populated provinces of Austria. The iron, lead, and calamine mines are the main sources of its wealth, though there are several manufactories of woolens, cottons, silk stuffs, etc., most of which are in Klagenfurt, the capital. Pop. (Est.) 400,000.

**Carisbrooke,** a village near the center of the Isle of Wight, and overlooked by the ruins of its ancient castle, where Charles I. was imprisoned 13 months previous to his trial and execution.

**Carlen, Emilia Flygare,** a Swedish novelist, born at Stromstad, Aug. 8, 1807. She died in Stockholm, Feb. 5, 1892.

**Carlen, Rosa,** a Swedish novelist, born in 1836; died in 1883.

**Carleton, Henry Guy,** an American journalist and dramatist, born in Fort Union, New Mexico, June 21, 1855. He pursued journalism in New Orleans and New York, and wrote several plays. He died Dec. 10, 1910.

**Carleton, Will,** an American poet, born in Hudson, Mich., Oct. 21, 1845; was best known by his ballads of home life, many of them having great popularity. He died Dec. 18, 1912.

**Carleton College,** a co-educational institution in Northfield, Minn.; organized in 1866 under the auspices of the Congregational Church.

**Carli, Giovanni Rinaldo,** an Italian economist and archæologist, born in Capo d'Istria, April 11, 1720; died Feb. 22, 1795.

**Carlisle, Richard,** an English Radical, born in Ashburton, Devonshire, Dec. 8, 1790; died Feb. 10, 1843.

**Carlisle,** an ancient city of England; the capital of Cumberlandshire; at the confluence of the Caldew and Eden rivers. Pop. (1921) 53,200.

**Carlisle,** borough and county-seat of Cumberland county, Pa.; on the Cumberland Valley, and the Gettysburg and Harrisburg railroads; 18 miles W. of Harrisburg. It is the site of Dickinson College, Metzger Female College, and the United States Indian Training School. It was the headquarters of Washington during the Whiskey Rebellion in 1794, and was bombarded by the Confederates in 1863. Pop. (1920) 10,916.

**Carlisle, John Griffin,** an American statesman, born in Kenton county, Ky., Sept. 5, 1835; received a common-school education, studied law, and was admitted to the bar (1858). He served several terms in the lower house of the State Legislature. During the Civil War he actively opposed secession, and in 1866 and 1869 was a member of the State Senate. He was lieutenant-governor of Kentucky (1871–1875), was elected to Congress (1876), and five times reëlected. His ability soon made him one of the Democratic leaders. In the 48th, 49th, and 50th Congresses he was chosen Speaker. In 1890 he was elected United States Senator, but resigned in March, 1893, to accept the

portfolio of Secretary of the Treasury. At the close of his term he settled in New York City to practice law. He died July 31, 1910.

**Carlists,** a Spanish political faction which advocates the claims of Carlos of Bourbon and his descendants to the Spanish throne. In 1833 they revolted and held the advantage until 1836, when Espartero inflicted on them a terrific defeat at Luchana. In August, 1839, their commander, Maroto, treacherously made peace, and the remaining Carlists soon fled to France. In 1873 the grandson of the first pretender raised another revolt, but after several sharp conflicts was defeated, and in 1876 with his chief supporters fled into France.

**Carll, John Franklin,** an American geologist, born in Long Island, N. Y., May 7, 1828. He became identified with coal oil development early in life, and has perfected many oil pumping devices. After 1874 he was connected with the Pennsylvania Geological Survey. He died in 1904.

**Carlos, Don,** Duke of Madrid, nephew of Don Carlos of Montemolin, born March 30, 1848. On the death of his uncle (1861) he became head of the Carlist party. In 1872 he issued a manifesto to the Carlist party at Madrid and appeared in the Basque provinces, but was badly defeated at Oroquieta and fled back to France. In 1873 he reappeared in the N. provinces of Spain; captured the stronghold Estella, and had soon overrun Navarre, Catalonia, Aragon, and Valencia, with the exception of the great cities. By February, 1876, the rebels were hemmed in along the N. coast, and the majority surrendered at Pamplona. He himself fled over the French border, and has since lived in exile and comparative poverty. During the Spanish-American War he came into notice again, and on April 13, 1898, from his retreat in Switzerland, issued a manifesto to his supporters; but he accomplished nothing and again went into retirement. He died July 8, 1909.

**Carlos I.,** King of Portugal; born in 1863, formerly known as Duke of Braganza, son of Louis I. He married, in 1886, Marie Amelie de Bourbon, daughter of the Count of Paris. On Feb. 1, 1908, both the King and Crown Prince Luiz were assassinated in Lisbon. He was succeeded by his second son, Manuel II., who was dethroned in 1910.

**Carlotta,** Ex-empress of Mexico, born in Brussels, June 7, 1840, the daughter of Leopold I. of Belgium. She was married to Maximilian, Archduke of Austria (1857). She accompanied her husband to Mexico in 1864, but in 1866 returned to Europe to solicit aid from the French Emperor and from the Pope. Her failure and the news of her husband's overthrow unbalanced her mind. She still lives near Brussels.

**Carlovingians,** the second dynasty of the French or Franklin kings, which supplanted the Merovingians, deriving the name from Charles Martel or his grandson Charlemagne (that is, Karl or Charles the Great).

**Carlsbad,** a town in Bohemia, on the Tepl, near its influx to the Eger, 116 miles W. by N. of Prague. It is widely celebrated for its hot mineral springs, and is frequented in summer by visitors from all parts of Europe. Pop., summer, 25,000–30,000.

**Carlskrona,** the capital of the Swedish province, built on five rocky islets in the Baltic, 240 miles S. S. W. of Stockholm. It has a magnificent harbor, with a sufficient depth of water to float the largest vessels. The only practicable entrance is strongly defended. Pop. (1915) 28,127.

**Carlsruhe,** or **Karlsruhe,** the capital of the grand-duchy of Baden, founded in 1715, and built in the form of a fan, with 32 streets radiating from the palace. Before the palace stands a bronze statue of the city's founder, the Margrave Charles William; and in the market-place is a stone pyramid inclosing his remains. Pop. (1919) 135,952

**Carlstadt,** a fortified town of Croatia, Austro-Hungary, on the Kulpa, 32 miles S. W. of Agram by rail. It is the seat of a Greek bishopric, and has a large transit trade. Carlstadt, in Bavaria, on the Maine, is 15 miles N. N. W. of Wurzburg.

**Carlstadt, Andreas Rudolf Bodenstein,** a German reformer, born in Carlstadt in 1480. He was appointed professor of theology at Wittenberg

in 1513. About 1517 he became one of Luther's warmest supporters. He was excommunicated by the bull against Luther, and was the first to appeal from the Pope to a general council. In 1524 he declared himself publicly the opponent of Luther, and commenced the controversy respecting the sacrament, denying the bodily presence of Christ in the sacramental elements. This controversy ended in the separation of the Calvinists and Lutherans. After many misfortunes he settled as vicar and professor of theology at Basel, where he died, Dec. 25, 1541.

**Carlyle, Jane Welsh,** wife of Thomas Carlyle; born in Haddington, Scotland, July 14, 1801. She claimed descent from William Wallace and John Knox and was from youth remarkable for beauty, wit and intellect. Her "Letters," edited by her husband, were published in 1883, the work being given to the world by J. A. Froude. She died in London, April 21, 1866.

**Carlyle, Thomas,** author, born in Ecclefechan, Dumfriesshire, Scotland, Dec. 4, 1795. He was the eldest son of James Carlyle, a mason, afterward a farmer, and was intended for the Church, with which object he was carefully educated. His first literary productions were short biographies and other articles for the "Edinburgh Encyclopædia." His career as an author may be said to have begun with the issue in monthly portions of his "Life of Schiller" in the London Magazine, in 1823, this work being enlarged and published separately in 1825. The largest and most laborious work of his life was "The History of Friedrich II. of Prussia, called Frederick the Great," the last two volumes of which appeared in 1865, and after this time little came from his pen. While still in Scotland the sad news reached him that his wife had died suddenly in London. Toward the end of his life he was offered a government pension and a baronetcy, but declined both. Carlyle died in Chelsea, Feb. 5, 1881.

**Carman, Elbert S.,** an American editor, born in Hempstead, N. Y., in 1836. He became owner and editor of the "Rural New Yorker" in 1876, in connection with which publication he established a farm at River Edge, N. J., where he gave much of his time to testing new plants, vines and seeds. He died in New York City, Feb. 28, 1900.

**Carman, Ezra Ayers,** an American military officer; born in Metuchen, N. J., Feb. 27, 1834. He served through the Civil War in the Army of the Potomac and the Army of the Cumberland; became a Brigadier-General, U. S. V. He died Dec. 25, 1909.

**Carmagnole** a dance accompanied by singing. Many of the wildest excesses of the French revolution of 1792 were associated with this dance. It was afterward applied to the bombastic reports of the French successes in battle. The name was also given to a sort of jacket worn as a symbol of patriotism.

**Carmel,** a range of hills in Palestine. It has a length of about 16 miles, and its highest point is 1,850 feet above the sea.

**Carmelite,** an order of mendicant friars. They claim to be in direct succession from Elijah, but their real founder was Berthold, a Calabrian, who, with a few companions, migrated to Mount Carmel about the middle of the 12th century, and built a humble cottage with a chapel, where he and his associates led a laborious and solitary life. The order is divided into two branches, viz., the Carmelites of the ancient observance, called moderate or mitigated, and those of the strict observance, who are known as the barefooted Carmelites.

**Carmen Sylva,** the pen-name of Elizabeth, Queen of Rumania, born Dec. 29, 1843; the daughter of Prince Hermann of Wied Neuwied, and Maria of Nassau; married King (then Prince) Charles of Rumania in 1869. Her only child, a daughter, died in 1874, and out of this great sorrow of her life arose her literary activity. In the war of 1877–1878 she endeared herself to her people by her devotion to the wounded soldiers, and afterward diligently fostered the national women's industries. She died March 2, 1916.

**Carminative,** a substance which acts as a stimulant to the stomach, causing expulsion of flatulence, also allaying pain and spasm of the intestines. Most of the ordinary condi-

ments, as pepper, mustard, ginger, cinnamon, cloves, nutmeg, oil of peppermint, etc., are carminative.

**Carmine,** the fine red coloring matter or principle of cochineal. It is used in dyeing.

**Carnac,** a village of Brittany, France, remarkable for the so-called Druidical monuments in this vicinity. These consist of 11 rows of unhewn stones, which differ greatly both in size and height, the largest being 22 feet above ground, while some are quite small. These avenues originally extended for several miles, but many of the stones have been cleared away for agricultural improvements. They are evidently of very ancient date, but their origin is unknown.

**Carnatic,** a region on the E. or Coromandel coast of India, now included in the province of Madras. The Carnatic is no longer an administrative division, but is memorable as the theater of the struggle betwen France and England for supremacy in India.

**Carnation,** in the fine arts, flesh color; the parts of a picture which are naked or without drapery, exhibiting the natural color of the flesh.

**Carnation,** the popular name of the clove-pink. Carnations are much prized for the beautiful colors of their sweet-scented double flowers.

**Carneades,** a Greek philosopher, born in Cyrene, in Africa, about 213 B. C. He studied logic at Athens under Diogenes, but became a partisan of the Academy, and an enemy of the Stoics. In 155 B. C., along with Diogenes and Critolaus, he was sent as ambassador to Rome, but his philosophy made him enemies and caused his return. He died at Athens, 129 B. C.

**Carnegie, Andrew,** an American manufacturer and philanthropist, born in Dunfermline, Scotland, Nov. 25, 1835.

The elder Carnegie was a master weaver of Dunfermline, Scotland. But the newly invented steam machinery drove him and his four hand looms out of business, and in 1848 he and his wife with their two boys decided to follow some relatives across the ocean to America. Here Andrew began work in a steam cotton factory, tending bobbins. In less than a year he had been taken from the factory by one who had noticed the boy, and, in the new works, he learned how to run the engine and was promoted to this work, his salary of 20 cents a day not being increased, until he did clerical work for his employer as well — for he had some knowledge of arithmetic and wrote a good hand. He next became a messenger boy in the Ohio Telegraph Company, shortly after which his father died, and at the age of 14 he became the sole support of his mother and younger brother. But the weight on his shoulders was merely a spur to his ambition. He had not been in the office a month when he began to learn telegraphy, and a little friendly instruction soon had him spending all his spare minutes at the key. Characteristically, he was not content with the general custom of receiving by the tape, but doggedly mastered the clicking tongue of the instrument, until the supposed insecurity of taking messages by sound was found not to apply to him. He became an operator presently at a salary which seemed to him princely, though he augmented even this $25 a month by copying telegraphic news for the daily papers.

When the Pennsylvania railroad needed an operator he was chosen to fill the vacancy. A little later Colonel Scott selected him for his secretary; and before long, when Colonel Scott advanced to the vice-presidency of the road, the young man found himself superintendent of the Pennsylvania's Western Division.

One day as the young superintendent was examining the line from a rear car, a tall, thin man stepped up to him, introduced himself as T. T. Woodruff, an inventor, and asked if he might show him an idea he had for a car to accommodate passengers at night. Out came a model from a green baize bag.

"He had not spoken a minute before, like a flash, the whole range of the discovery burst upon me. 'Yes,' I said, 'this is something which this continent must have.'

"Upon my return I laid it before Mr. Scott, declaring that it was one of the inventions of the age. He remarked: 'You are enthusiastic, young man, but you may tell the inventor to come and let me see it.' I did so, and arrangements were made to build two trial cars, and run them on the Penn-

sylvania railroad. I was offered an interest in the venture, which, of course, I gladly accepted.

"The notice came that my share of the first payment was $217.50 — as far beyond my means as if it had been millions. I was earning $50 per month, however, and had prospects, or at least I always felt that I had. I decided to call on the local banker, and boldly ask him to advance the sum upon my interest in the affair. He put his hand on my shoulder and said: 'Why, of course, Andie, you are all right. Go ahead! Here is the money.' . . . The cars paid the subsequent payments from their earnings. I paid my first note from my savings, so much per month, and thus did I get my foot upon fortune's ladder. It is easy to climb after that. And thus came sleeping-cars into the world."

But the man had not yet struck his true vocation. That came presently, when his attention was drawn to the wooden bridges universally used at that time. The Pennsylvania road was experimenting with a cast-iron bridge. Andrew Carnegie went out and formed a company to build iron bridges. He had to raise $1,250, but he had behind him the confidence of a Pittsburg banker, and this proved easy.

From this time on the name of Andrew Carnegie is inseparably associated with that astonishing development of American iron and steel, which is among the modern wonders of the world. The Keystone Company built the first great bridge over the Ohio river; and the Union Iron Mills appeared in a few years as the natural outgrowth of this ramifying industry. Then, in 1868, Carnegie went to England. The Bessemer process of making steel rails had lately been perfected. The English railways were replacing their iron rails with steel ones as rapidly as possible. The English manufacturers were beginning to whisper to each other that they had a firm grip of a gigantic revolutionizing idea. The young Scotchman went back to Pittsburg, and before the Englishmen were well aware of his existence he laid the foundation of the steel works which have now finally beaten them at their own game.

The iron-master was now fairly launched on his life work. He bought up the Homestead works, his most formidable rival, and by 1888 he controlled seven huge plants, all within five miles of Pittsburg, which he proceeded to forge and amalgamate into a steel-armored giant, called the Carnegie Steel Company.

Next to his fame as the "Steel King," Carnegie is undoubtedly most widely known through his remarkable list of public benefactions in the shape of libraries, museums, and other worthy public objects, the total amount of which was estimated as being over $350,000,000. His most noteworthy gifts were $30,000,000 for public libraries in the United States; $16,000,000 for the Carnegie Institute in Pittsburg, Pa.; $15,000,000 for college professors' pensions; $10,000,000 for the Carnegie Institute in Washington, D. C.; $10,000,000 for libraries in foreign countries; $10,000,000 for Scotch universities; $5,000,000 for a Hero Fund in the United States, $1,250,000 for one in Scotland, and $1,000,000 for one in France; $5,000,000 for Carnegie Steel Company's employes; $5,000,000 for Dunfermline (Scotland) endowment; $7,500,000 for Carnegie Technical Institute at Pittsburg; $1,750,000 for Temple of Peace at The Hague; $1,500,000 for the Allied Engineers' Societies in New York; $750,000 for a building for the Bureau of American Republics in Washington, D. C.; $18,000,000 to colleges in the United States. In 1911 the Carnegie Corporation of New York was incorporated to take over all of his benefactions, and received from him $125,000,000 for its work. He died in 1919.

**Carnegie Institution,** an educational body incorporated Jan. 4, 1902, in Washington, D. C., by John Hay, Secretary of State; Edwin D. White, Justice of the Supreme Court; Daniel C. Gilman, ex-president of Johns Hopkins University; Charles D. Walcott, superintendent of the United States Geological Survey; Dr. John S. Billings, Director of the New York Public Library; and Carroll D. Wright, United States Commissioner of Labor. The aims of the university, as expressed by the founder, are: (1) To increase the efficiency of the universi-

ties and other institutions of learning throughout the country by utilizing and adding to their existing facilities, and by aiding teachers in the various institutions for the experimental and other work in these institutions as far as may be advisable. (2) To discover the exceptional man in every department of study, whenever and wherever found to enable him by financial aid to make the work for which he seems especially designed his life work. (3) To promote original research, paying great attention thereto as being one of the chief purposes of this institution. (4) To increase the facilities for higher education. (5) To enable such students as may find Washington the best point for their special studies to avail themselves of such advantages as may be open to them in the museums, libraries, laboratories, observatory, meteorological, piscicultural, and forestry schools and kindred institutions of the several departments of the government. (6) To insure the prompt publication and distribution of the results of scientific investigation, a field considered to be highly important.

The board of trustees elected by the corporators of the institution was as follows: The President of the United States (ex-officio), the President of the United States Senate, the Speaker of the House of Representatives, the Secretary of the Smithsonian Institution, the President of the National Academy of Sciences, and Grover Cleveland (New Jersey), John S. Billings (New York), William N. Frew (Pennsylvania), Lyman J. Gage (Illinois), Daniel C. Gilman (Maryland), John Hay (District of Columbia), Abram S. Hewitt (New Jersey), Henry L. Higginson (Massachusetts), Henry Hitchcock (Missouri), Charles L. Hutchinson (Illinois), William Lindsay (Kentucky), Seth Low (New York), Wayne MacVeagh (Pennsylvania), D. O. Mills (California), S. Weir Mitchell (Pennsylvania), W. W. Morrow (California), Elihu Root (New York), John C. Spooner (Wisconsin), Andrew D. White (New York), Edward D. White (Louisiana), Charles D. Walcott (District of Columbia), and Carroll D. Wright (District of Columbia).

The trustees assembled in Washington on Jan. 29, 1902, received from Mr. Carnegie the deed of gift of $10,000,000, and elected Daniel C. Gilman, LL. D., president of the Institution.

**Carnifex Ferry,** a place on the Gauley river, in Nicholas Co., Va. A sharp battle occurred here Sept. 10, 1861, between Federal troops under General Rosecrans and Confederates under General Floyd. After nightfall Floyd retreated across the river.

**Carnival,** the festival celebrated in Roman Catholic countries, and especially in Rome and Naples, with great mirth and freedom during the week before the beginning of Lent. In the United States carnivals are annually celebrated in New Orleans, in St. Louis and in Memphis. That at New Orleans is especially spectacular, the festivities being prolonged three days and attracting thousands of visitors.

**Carnivora.** All animals which prey upon other animals are carnivorous, but the term Carnivora, as the designation of a group, is now restricted to that order of mammals to which the cat, dog, bear, and seal belong.

**Carnivorous Plants,** plants which derive nourishment directly from the bodies of insects or other small creatures entrapped by them in various ways. In all these the apparatus for catching insects consists of a modified leaf or portion of a leaf, and in some the modifications are so curious and the adaptations so perfect that the plant seems almost endowed with intelligence.

**Carnochan, John Murray,** an American surgeon, famous for his bold and skillful operations; born in Savannah, Ga., July 4, 1817; studied at Edinburgh and at various European universities; and began his practice in New York city in 1847. In 1851 he became professor of surgery at the New York Medical College, and surgeon-in-chief to the State Immigrant Hospital. He died in New York, Oct. 28, 1887.

**Carnot, Lazare Hippolyte** a French Democrat, born in St. Omer, April 6, 1801. After the February Revolution (1848) he was appointed Minister of Public Instruction, but soon resigned. He was elected a senator for life in 1875, and died March 16, 1888.

**Carnot, Lazare Nicolas Marguerite,** a French statesman, general, and strategist; born in Burgundy, May 13, 1753. In 1791 he was appointed deputy to the constituent assembly. In the following March he was sent to the Army of the North, where he took command and successfully repulsed the enemy. On his return he was made member of the Committee of Public Safety, and directed and organized the French armies with great ability and success. In 1797 Carnot was appointed Minister of War by Napoleon (1800). But he remained in principle an inflexible Republican, voted against the consulship for life, and protested against Napoleon's assumption of the imperial dignity. For seven years after this Carnot remained in retirement, publishing several valuable military works. In 1814 Napoleon gave him the chief command at Antwerp, and in 1815 the post of Minister of the Interior. After the Emperor's second fall he retired from France. He died in Magdeburg, Prussia, Aug. 3, 1823.

**Carnot, Marie Francois Sadi,** President of the French Republic; born in Limoges, Aug. 11, 1837; a grandson of the famous war minister of the Revolution. During the siege of Paris in 1871 he was made prefect of the Seine-Inferieure and showed great ability as commissary-general. In politics he was an earnest Republican. Elected to the National Assembly in 1871 by the Cote d'Or, he soon rose to prominence. In 1876 he was chosen secretary of the Chamber of Deputies; in 1878 Secretary of Public Works. He was Minister of Public Works in 1881–1882 and 1886. In December, 1887, on the resignation of M. Grevy he was chosen President. His policy was one of peace with foreign nations, careful development of the army and navy, and economy in all departments. While attending an exposition at Lyons, June 24, 1894, he was stabbed by a fanatical Italian Anarchist, from the effect of which he died the next day.

**Caro, Miguel Antonio,** a Colombian prose-writer and poet; born in Bogota, Colombia, Nov. 10, 1843. He became an editor and contributor to periodicals. He died Aug. 5, 1909.

**Carob,** a tree, native of the Levant. It is an evergreen, and produces long horn-like pods filled with a mealy, succulent pulp of sweetish taste, used for food for horses, and sometimes even for human beings, and called St. John's bread.

**Carol,** a song of praise sung at Christmastide. It originally meant a song accompanied with dancing, in which sense it is frequently used by the old poets.

**Caroline,** Queen of England; daughter of the Duke of Brunswick-Wolfenbuttel; born May 17, 1768. In 1795 she was married to the Prince of Wales, afterward George IV. The marriage was not to his liking, and after the birth of the Princess Charlotte he separated from her. Many reports were circulated against her honor, and a ministerial committee was formed to inquire into her conduct. But the people in general sympathized with her, regarding her as an ill-treated wife. When the Prince of Wales ascended the throne in 1820 he offered her an income of £50,000 on condition that she would never return to England. She refused, and in June of the same year entered London amid public demonstrations of welcome. The government now instituted proceedings against her for adultery, but the public feeling and the splendid defense of Brougham obliged the ministry to give up the divorce bill after it had passed the lords. Though banished from the court, the queen then assumed a style suitable to her rank. She died Aug. 7, 1821.

**Caroline Islands,** a group in the Western Pacific, lying between the Marshall and Pelew islands, with an area of about 390 square miles, and a population (Est.) of 60,000: but the Pelew group is now generally included in the Caroline Archipelago (area, 560 square miles; population 36,000), which thus stretches across 32° of lon. and 9° of lat. There are some 500 small atolls in the archipelago, but three-fourths of both area and population are included in the five volcanic islands of Babelthouap, Yap, Rouk, Ponape (Ascension), and Kusari (Strong Island); these are all fertile and well watered, and many of the low-lying lagoons, though less so, are well wooded and to some ex-

tent inhabited. The climate is moist, but not unhealthy, and is tempered by cooling breezes. The people belong to the brown Polynesian stock. The islands were discovered in 1527 by the Portuguese, and called Sequeira; in 1686 they were annexed and rechristened in honor of Charles II. by the Spaniards, who, however, shortly changed the name to New Philippines. After the failure of several missionary attempts in the 18th century, Spain took little active interest in the group until August, 1885, when the German flag was hoisted on Yap. The sharp dispute which followed was submitted to the Pope as arbitrator, who decided in favor of Spain, but reserved to Germany special trade privileges. In 1887 disturbances broke out at Ponape, in which the governor, who had arrested one of the American Protestant missionaries, was killed by the natives; but the rising was shortly put down. In February, 1899, Germany purchased from Spain the Caroline and Pelew islands, and all of the Ladrones excepting Guam. By Treaty of Versailles, 1919, islands given to Japan as mandatory.

**Carolinium,** an element possessing radio-active powers of great intensity. With another named Berzelium, it was discovered in 1904, by Prof. C. Baskerville of North Carolina.

**Carotid,** the great arteries of the neck.

**Carp,** a fresh-water fish. It is a native of Asia, but has been extensively introduced into the United States.

**Carpathian Mountains,** (German, Karpathen), a range of mountains in Southern Europe, chiefly in Austria, nearly 800 miles in length. The Carpathians form the water-parting between the basins of the Baltic and Black Seas, and a mountain bulwark from Pressburg on the Danube to Orsova on the Rumanian frontier, a sweep of nearly 800 miles. Early in the great war this entire region became a section of strategic importance, and on Aug. 30, 1916, the Rumanians seized the five principal passes, forcing the Austro-Hungarians to retire. See APPENDIX: *World War.*

**Carpeaux, Jean Baptiste,** a French sculptor, born in Valenciennes, May 14, 1827; died Oct. 11, 1875.

**Carpel,** the leaf forming the pistil. Several carpels may enter into the composition of one pistil.

**Carpentaria, Gulf of,** a large gulf on the N. coast of Australia.

**Carpenter, Charles Carroll,** an American naval officer, born in Greenfield, Mass., Feb. 27, 1834. He was promoted rear-admiral Nov. 11, 1894; was commander-in-chief of the United States Asiatic squadron from Aug. 27, 1894, till Nov. 9, 1895; and was retired on reaching the age-limit, Feb. 28, 1896. During the summer of 1895 he rendered invaluable service in China in protecting American missionaries and in coöperating with United States Minister Charles Denby and the British and Chinese authorities to preserve peace, particularly after the Kucheng massacre. He died April 1, 1899.

**Carpenter, Esther Bernon,** an American prose writer, born in Wakefield, R. I., 1848; died in 1893.

**Carpenter, Francis Bicknell,** an American painter, born in Homer, N. Y., Aug. 6, 1830. In 1852 he became an associate of the National Academy. Among his works are a portrait of President Lincoln, in the capitol at Albany, N. Y., and the "Emancipation Proclamation" (1864), in the capitol at Washington. He died in New York city, May 23, 1900.

**Carpenter, Gilbert Saltonstall,** an American military officer, born in Medina, O., April 17, 1836; was admitted to the bar in 1861, and immediately afterward entered the Union army. He served through the Civil War, in which he received the brevet of captain for gallantry in the battle at Stone river. Subsequently he rendered service in various Indian campaigns; was commissioned a brigadier-general of volunteers in the war with Spain in 1898; and became colonel of the 18th United States Infantry, June 20, 1899. His volunteer appointment was for his gallantry at El Caney, Cuba. Died Aug. 12, 1904.

**Carpenter, Louis G.,** an American engineer; born in Orion, Mich., March 28, 1861. In 1888 he became Professor of Engineering at the Colorado Agricultural College, where he organized the first course in irrigation engineering given in any Amer-

ican college. He founded the American Society of Irrigation Engineers in 1891.

**Carpenter, Louis H.,** an American military officer, born in Glassboro, N. J., Feb. 11, 1829. He served in the Army of the Potomac through numerous engagements, was an aide-de-camp to General Sheridan, was commissioned colonel of volunteers in 1865, subsequently served in various Indian campaigns, became colonel of the Fifth United States Cavalry in 1897, and brigadier-general of volunteers in 1898, and brigadier-general, U. S. A., Oct. 18, 1899, for services in the Spanish-American war, and particularly as commander of the Department of Porto Principe, Cuba. He died Jan. 21, 1916.

**Carpenter, Mary,** an English philanthropist, born in Exeter, April 3, 1807. Trained as a teacher, and afterwards a governess, she took an active part in the movement for the reformation of neglected children, and besides advocating their cause in her writings, she founded a ragged school and several reformatories for girls. She founded in 1835 a "working and visiting society," of which she was secretary for more than 20 years. She promoted the Industrial Schools Act of 1857, and some of her proposals were adopted in the amended Acts of 1861 and 1866. In the prosecution of her philanthropic labors she visited India four times, and in 1870 instituted the National Indian Association, whose journal she edited. She attended a congress on women's work at Darmstadt as a guest of the Princess Alice, and visited the United States in 1873. She died June 14, 1877. She was the author of a number of popular books.

**Carpenter, Matthew Hale,** an American legislator, born in Moretown, Vt., Dec. 22, 1824. He studied at West Point, and was admitted to the bar in 1845. He removed in 1848 to Wisconsin and was sent to the United States Senate from that State in 1869 and in 1879. He died in Washington, D. C., Feb. 24, 1881.

**Carpenter, Stephen Cutter,** an American journalist, born in England. He came to the United States in 1803, and settled in Charleston, S. C., where he founded and published with John Bristed the "Monthly Register Magazine and Review of the United States." His works included: "Memoirs of Jefferson, Containing a Concise History of the United States from the Acknowledgment of Their Independence, with a View of the Rise and Progress of French Influence and French Principles in that Country." He died about 1820.

**Carpenter, William Benjamin,** an American physiologist, born in Exeter, Oct. 29, 1813; died Nov. 13, 1885.

**Carpenter, William Henry,** an American philologist, born in Utica, New York, July 15, 1853. He received a university education in the United States and Europe. Became professor of Germanic Philology in Columbia University. He has published numerous works in the line of his specialty.

**Carpentry,** the art of combining pieces of timber to support a weight or sustain pressure.

**Carpet,** a thick fabric, generally composed wholly or principally of wool, for covering floors. They were originally introduced from the East, where they were fabricated in pieces, like the modern rugs.

**Carpet-bagger,** a political adventurer, who goes about the country pandering to the prejudices of the ignorant with the view of getting into place or power, so called because regarded as having no more property than might fill a carpet-bag. Originally applied to needy adventurers of the Northern States, who tried in this way to gain the votes of the negroes of the Southern States after the close of the Civil War.

**Carr, Eugene Asa,** an American army officer, born in Concord, N. Y., March 20, 1830; graduated at the United States Military Academy in 1850. He was in active service throughout the Civil War, commanding the 4th Division of the Army of the Southwest, and subsequently acting as commander of the same army. In December, 1863, he was assigned to the Army of Arkansas. At the close of the war he was promoted to Brigadier-General, U. S. A., and brevetted Major-General of volunteers. In 1868–

1869 he was engaged against the Sioux and Cheyenne Indians, and afterward took part in other expeditions against hostile Indians. He fought in 13 engagements with Indians, was four times wounded in action, and received a Congressional Medal of Honor and the thanks of the Legislatures of Nebraska, Colorado, and New Mexico. He died Dec. 2, 1910.

**Carr, Joseph Bradford,** an American military officer, born in Albany, N. Y., Aug. 16, 1828. He joined the militia in 1849. Was later appointed colonel of the 28th New York Volunteers, and led them at the battle of Big Bethel and in McClellan's Peninsular campaign. He took part in the battles of Chancellorsville and Gettysburg, and for his bravery throughout the war he was brevetted a Major-General of volunteers. After the war he became prominent in Republican politics in New York State and was elected Secretary of State in 1879, 1881, and 1883. In 1885 he was defeated for lieutenant-governor. He died Feb. 24, 1895.

**Carr, Lucien,** an American archæologist, born in Missouri in 1829; died Jan. 27, 1915.

**Carr, Sir Robert,** a British commissioner in New England. In 1664 he was appointed commissioner by Charles II., with Nicolls, Cartwright, and Maverick. On Aug. 27, Carr and Nicolls captured New Amsterdam and named it New York. They took Fort Orange Sept. 24, and named it Albany. He died June 1, 1667.

**Carranza, Venustiano,** a Mexican military officer, born in Cuatro Cienegas, Coahuila, about 1858; received a liberal education; studied law; and acquired large wealth in the wheat, cattle, and rubber industries. After serving several years in the Mexican Senate and as governor of Coahuila, he became an active opponent of President Diaz; later affiliated with the Madero party; took the field against Victoriana Huerta; became chief of the Constitutionalist party, and Provisional President, Aug. 14, 1914. Killed, 1920. See APPENDIX: *Mexican Campaign.*

**Carrara,** a town of Central Italy, in the province of Massa-Carrara. It is celebrated for the famous Carrara marble, a white saccharine limestone, which derives its value from its texture and purity. The quarries have been wrought from the age of Augustus, and seem to be now as inexhaustible as ever. Pop. (Est.) 45,000.

**Carreno, Teresa,** a Venezuelan pianist, born in Caracas, Dec. 22, 1853. After successful tours in England, the United States and Germany, she was appointed, in 1893, court pianist to the King of Saxony.

**Carriage,** a general name for any vehicle intended for the conveyance of passengers either on roads or railways. Mounted on wheels.

**Carrier,** a person, corporation, or vehicle regularly employed in carrying goods, messages, or other articles.

**Carrier, Jean Baptiste,** an infamous character of the first French revolution, born in 1746. Though an obscure attorney at the beginning of the revolution, he was chosen, in 1792, member of the National Convention. In October, 1793, he was sent to Nantes to suppress the civil war, and to finally put down the Vendeans. The prisons were full; there was dearth of provisions, and Carrier determined to lessen the "useless mouths" by summary measures. He first caused priests to be conveyed to a boat with a perforated bottom, under pretense of transporting them, but instead they were drowned by night. Carrier also caused multitudes of prisoners to be shot without any pretense of trial. Some months before the fall of Robespierre, Carrier was recalled. On the 9th Thermidor (July 27), 1794, he was apprehended and brought before the revolutionary tribunal, which condemned him to the guillotine.

**Carriere, Eugene,** a French genre painter, born in 1849; was awarded several medals, and the Legion of Honor, 1889. Died March 27, 1906.

**Carriere, Moriz,** a German philosopher, born in Griedel, Hesse, March 5, 1817; died in Munich, Jan. 19, 1895.

**Carrier Pigeon,** a variety of the common domestic pigeon used for the purpose of carrying messages.

**Carrillo, Branlio,** a statesman of Costa Rica, born in Cartago in 1800. He was twice president of the republic (1835–1837 and 1838–1842), and greatly promoted its material prosper-

ity. Carrillo's government was overturned by Morazan in 1842. He was assassinated in Salvador in 1845.

**Carrington, Edward,** an American military officer, born in Virginia, Feb. 11, 1749; was lieutenant-colonel of General Harrison's artillery regiment, quartermaster-general under General Greene, a delegate to the Continental Congress, and foreman of the jury in Aaron Burr's trial for treason. He died Oct. 28, 1810.

**Carrington, Henry Beebe,** an American military officer, born in Wallingford, Conn., March 2, 1824. He began the practice of law in Columbus, O., in 1848, and took an active part in the anti-slavery movement. In the convention which met in 1854 to organize the Republican Party, Carrington was on the committee appointed to correspond with the different States and make the movement National. In 1861 he was appointed colonel of the 18th United States infantry, served through the war, and afterward was in service on the plains till 1869; Professor of Military Science and Tactics in Wabash College, Ind., after 1870. He died Oct. 26, 1912.

**Carrington, Paul,** an American statesman, born in Charlotte county, Va., Feb. 24, 1733; was graduated at William and Mary College. He was a member of various conventions during the Revolution, and became a member of the Court of Appeals, and in the Virginia convention voted for the adoption of the Federal Constitution. He died June 22, 1818.

**Carrington, Richard Christopher,** an English astronomer, born in Chelsea, May 26, 1826. Died in Surrey, Nov. 26, 1876.

**Carrion Crow,** a name given to a small species of vulture called the Black Vulture.

**Carroll, Charles,** the last surviving signer of the Declaration of American Independence, born in Annapolis, Md., Sept. 20, 1737. He studied at Paris, became a member of the Inner Temple at London, returned to his native country in 1764, was elected to Congress in 1775, and, along with the other members, signed the Declaration on Aug. 2 of the following year. In 1804, he withdrew to private life at Carrollton, his patrimonial estate. He survived by six years all the other signers of the Declaration, and died in Baltimore, Nov. 14, 1832.

**Carroll, Henry King,** an American religious editor, born in Dennisville, N. J., Nov. 15, 1848. He supervised the compilation of religious statistics for the Eleventh Census, and in 1898 was chosen by President McKinley to prepare a report on the internal conditions of Porto Rico.

**Carroll, John,** cousin of Charles Carroll, and first Roman Catholic bishop in the United States; born in Upper Marlboro, Md., Jan. 8, 1735. In 1775 he engaged in the duties of a parish priest, and in 1786 he was appointed vicar-general, and settled at Baltimore. In 1790 he was consecrated, in England, Catholic bishop of the United States, and returned with the title of Bishop of Baltimore. A few years before his death he was created archbishop. He died in Georgetown, D. C., Dec. 3, 1815.

**Carrot,** a biennial umbelliferous plant, cultivated for the table and as a food for cattle.

**Carson, Christopher,** commonly called Kit, an American trapper and scout, born in Kentucky, Dec. 4, 1809. He served under General Fremont in his Rocky Mountain expeditions, and fought in the Mexican and Civil Wars, attaining the rank of brevet Brigadier-General. He died at Fort Lynn, Col., May 23, 1868.

**Carson, Hampton Lawrence,** an American publicist, born in Philadelphia, Pa., Feb. 21, 1852. He was graduated at the University of Pennsylvania (1871), and is now a Lecturer on Law at that University.

**Carson City,** the capital of the State of Nevada. The city is the seat of a United States mint. Pop. (1920) 2,700.

**Carty, John J.,** an American electrician, born in Cambridge, Mass., April 14, 1861; entered the telephone business in 1879; laid the longest underground telephone cable in the world, connecting Boston with New York and Washington; became chief engineer of the American Telephone and Telegraph Company in 1907; and in 1915 perfected a transcontinental line between Washington and Hawaii, nearly 5,000 miles.

**Cartagena,** capital of the State of Bolivar, Republic of Colombia. The streets are narrow, with high houses, but the place is well built. and possesses a university, a handsome cathedral, and several churches. Pop. about 20,000.

**Cartagena,** or **Carthagena,** a fortified town and seaport of Spain, with a harbor which is one of the largest and safest in the Mediterranean. Pop. (Est.) 105,000.

**Cartago,** (1) a river and almost landlocked bay or lagoon, communicating with the Caribbean Sea, near the N. extremity of the Mosquito Coast. (2) A town of Costa Rica, 12 miles E. of the present capital, San Jose, on a plain to the S. of the constantly smoking volcano of Irazu (11,500 feet). Founded in 1522, the place had 23,000 inhabitants in 1823, and was capital of the State till 1841, when it was all but destroyed by an earthquake. (3) A town of Cauca, in Colombia, founded in 1540, on the Rio Viejo, three miles above its junction with the Cauca, and producing cocoa, tobacco, and coffee.

**Carte-blanche,** a blank sheet of paper to be filled up with such conditions as the person to whom it is given may think proper; hence absolute freedom of action.

**Carte-de-visite,** a small likeness affixed to a card, so called from photographs of very small size having been originally used as visiting cards.

**Cartel,** an agreement for the delivery of prisoners or deserters; also, a written challenge to a duel. Cartelship, a ship commissioned in time of war to exchange prisoners.

**Carter, Franklin,** an American educator, born in Waterbury, Conn., Sept. 30, 1837; was president of Williams College in 1881-1901.

**Carter, Samuel Powhatan,** an American naval and military officer, born in Elizabethtown, Tenn., Aug. 6, 1819. He fought in the Mexican War in coast attack, and in 1856 took part in the capture of the Barrier forts, Canton, China. All through the Civil War he was of great service to the government, and for his gallantry was brevetted Major-General of volunteers. In 1882 he was promoted to Rear-Admiral on the retired list. He died in Washington, D. C., May 26, 1891.

**Carter, Sir Frederic Bowker Terrington,** a Canadian jurist, born in St. John's, Newfoundland, Feb. 12, 1819. He served in the Newfoundland Assembly from 1855 to 1878, and two years later became Chief Justice of Newfoundland. He was knighted in 1878. He died in St John's, Feb. 28, 1900.

**Carter, Thomas Henry,** an American politician, born in Scioto county, Ohio, Oct. 30, 1854.He removed to Montana in 1882, was Montana's first representative in Congress (1891), became United States Senator from that State in 1892, and was chairman of the National Republican Committee in 1892–96. D. in 1911.

**Carteret, Sir George,** one of the proprietors of New Jersey, born on the island of Jersey in 1599. He early manifested an interest in colonization, and became, with Sir John Berkeley, one of the proprietors of New Jersey. He died Jan. 14, 1679.

**Carteret, Philip,** an English navigator. As commander of the "Swallow," he joined an exploring expedition to the Southern seas, discovering Pitcairn, Osnaburg, Queen Charlotte, Sandwich and Solomon Islands, besides correcting several errors of former surveys. He retired from the navy in 1794, with the honorary rank of Rear-Admiral, and died in Southampton, July 21, 1796.

**Carthage,** the most famous city of Africa in antiquity, capital of a rich and powerful commercial republic, situated in the territory now belonging to Tunis. The policy of Rome in encouraging the African enemies of Cartnage occasioned the third Punic war, in which Rome was the aggressor. This war, begun B. C. 150, ended B. C. 146, in the total destruction of Carthage. After the destruction of Carthage her territory became the Roman province of Africa. Twenty-four years after her fall an unsuccessful attempt was made to rebuild Carthage by Caius Gracchus. This was finally accomplished by Augustus, and Roman Carthage became one of the most important cities of the empire. It was taken and destroyed by the Arabs in 638.

**Carthage,** city and capital of Jasper county, Mo.; near Spring river and on the Missouri Pacific and other railroads; 150 miles S. of Kansas City; is the center of an extensive lead region; and has zinc mines, stone and lime works, flour mills, canneries, woolen mills, and machine and furniture plants. It was the scene of a Civil War battle, July 5, 1861. Pop. (1920) 10,068.

**Cartier, Sir George Etienne,** a Canadian statesman, born in St. Antoine, Quebec, Sept. 6, 1814. He was active in bringing about the establishment of the Dominion of Canada in 1867. He died May 20, 1873.

**Cartier, Jacques,** a French navigator, born in St. Malo, Dec. 31, 1494. He commanded an expedition to North America in 1534, entered the Straits of Belle Isle, and took possession of the mainland of Canada in the name of Francis I. He subsequently went to found a settlement in Canada, and built a fort near the site of Quebec. He died about 1554.

**Cartilage,** a texture or substance possessed of elasticity, flexibility, and considerable cohesive power. Temporary cartilage is present in place of bone in very early life, and as development goes on ossifies. Permanent cartilage, on the contrary, retains its character to the last, never ossifying.

**Cartilaginous Fishes,** a general designation for those fishes whose skeleton consists of cartilage instead of bone, and which comprise the sharks and skates or rays.

**Cartoon,** in painting, a drawing intended to be used as a model for a large picture in fresco. In modern times the term is also applied to a pictorial sketch relating to some notable character or events of the day.

Cartoons have become a leading feature of American journalism and of political campaigns, and some "cartoonists" receive large salaries.

**Cartouch,** a tablet intended to receive an inscription which resembles a scroll of paper rolled up at the ends. It is also applied to the modillion that supports the corona of a cornice used in interior decoration.

In military language it is a canvas or leather cartridge-box; a case for holding musket-balls and powder; a wooden bomb; a ticket of leave, or dismissal, given to a soldier.

**Cartridge,** a case of paper, parchment, metal, or flannel suited to the bore of firearms, and holding the exact charge, including, in the case of small arms, both powder and bullet.

**Cartwright, Edmund,** an English inventor, born in Marnham, April 24, 1743. In 1785 he brought his invention, the first power-loom, into action. He died in Hastings, Oct. 30, 1823.

**Cartwright, Peter,** an American clergyman, born in Virginia, Sept. 1, 1785; ordained in Kentucky in 1806, and in 1823 removed to Illinois, where he labored for nearly a century. He also sat in the State Legislature there, and in 1846 was defeated by Abraham Lincoln in an election for Congressman. He died near Pleasant Plains, Ill., Sept. 25, 1872.

**Cartwright, Sir Richard John,** a Canadian statesman, born in Kingston, Ont., Dec. 4, 1835. He was Minister of Finance from 1873 until 1878; an able speaker and authority on finance; in 1897 was a member of a commercial commission to the United States. He died Sept. 24, 1912.

**Carupano,** a growing port of the Venezuelan State of Bermudez, on the N. coast of the peninsula of Paria, with a lighthouse and good roadstead. Pop. 12,389.

**Carus, Marcus Aurelius,** a Roman emperor, born in 222, succeeded to the throne in 282 A. D., after the assassination of Probus. He was a good and able ruler and conquered the Sarmatians, wrested Mesopotamia, Seleucia, and Ctesiphon from the Persians, and was about to make an invasion beyond the Tigris when he was killed in 283.

**Carver, John,** a "Pilgrim Father," the first governor of the Plymouth colony, born in England about 1575. He joined the Leyden colony of English exiles about 1608, and assisted in securing a charter from the Virginia Company and in selecting and equipping the "Mayflower." He was elected governor after the "Mayflower" reached Provincetown, and established by a treaty with the Indians peaceful relations. He was re-elected in March, 1621, but died a few days afterward.

His chair and sword are still preserved as Pilgrim relics.

**Cary, Alice,** an American poetess, born near Cincinnati, O., April 26, 1820. In 1852 she, with her sister, Phœbe, removed to New York City, where they lived during the rest of their lives. She died in New York City, Feb. 21, 1871.

**Cary, Annie Louise,** an American singer; born in Wayne, Me., Oct. 22, 1842; studied in Milan, made her operatic début in Copenhagen in 1868, and returned in 1870 to the United States, where she remained until 1882, when she married Charles M. Raymond, and retired from the stage while her voice was still unimpaired.

**Cary, Edward,** an American journalist; born in Albany, N. Y., June 5, 1840. He has long been connected with the "New York Times."

**Cary, George Lovell,** an American theologian; born in Medway, Mass., May 10, 1830. He was graduated at Harvard College in 1852; and from 1862 was Professor of New Testament Literature in Meadville Theological Seminary, of which he also became president. He died in 1910.

**Cary, Phœbe,** an American poetess and prose-writer, sister of Alice; born in Cincinnati, O., Sept. 4, 1824. She died in Newport, R. I., July 31, 1871.

**Cary, Samuel Fenton,** an American politician; born in Cincinnati, O., Feb. 18, 1814; represented Ohio in Congress in 1867–1869; was the only Republican representative to vote against the impeachment of President Johnson; and was an unsuccessful candidate for vice-president in 1876, on the "Greenback" ticket, headed by Peter Cooper. He died in 1900.

**Caryatides,** or **Caryates,** a term used to signify the figures which are sometimes introduced to support a cornice instead of columns.

**Caryocar,** large trees, natives of the hottest parts of South America, much esteemed for their timber. The separated portions of the fruit constitute the Souari or Suwarrow nuts of commerce, the kernels of which are delicious.

**Caryophyllus,** the Clove-tree, a native of the Moluccas. The cloves of commerce are the unexpanded flower-buds dried. They form a well-known spice.

**Carysfort Reef,** a coral reef near the S. extremity of Florida.

**Casabianca, Louis,** a French naval officer, born in Bastia about 1755, and in 1798 was captain of the flagship "L'Orient" in the expedition to Egypt. He was mortally wounded at the battle of the Nile, Aug. 1, 1798; the ship caught fire; his 10-year-old son would not leave him, and both were floating on the wreck of the ship's mast when the final explosion took place.

**Casanare,** a river of the Republic of Colombia, which flows through a region called by the same name, and after an easterly course of 180 miles empties into the Meta.

**Casareep,** or **Cassiripe,** a sauce or condiment made from the juice of the Bitter Cassava or Manioc root, which also furnishes tapioca.

**Casas Grandes,** an old Indian town of Mexico, in the State of Chihuahua, 125 miles S. W. of El Paso.

**Casati, Gaetano,** an Italian explorer, born in Monza, in 1838. He explored Bahr-el-Ghazel, and, after long captivity among African tribesmen, was rescued by Stanley. He died in Rome, Italy, March 7, 1902.

**Casca, Publius Servilius,** a Roman conspirator, assisting in the assassination of Julius Cæsar, 44 B. C.

**Cascade Range,** a chain of mountains in the States of Oregon and Washington. It takes its name from the cascades formed by the Columbia river breaking through the mountains.

**Casco Bay,** a bay on the S. W. coast of Maine; is about 20 miles wide and so deep as to constitute one of the best harbors of the world.

**Case,** in grammar, a modification or inflection of a noun, pronoun, or adjective, by which a different shade of meaning is communicated to the word.

**Case, Augustus Ludlow,** an American naval officer, born in Newburg, N. Y., Feb. 3, 1813; entered the navy as a midshipman in 1828, served in the Mexican war. He was a lighthouse inspector in 1867; chief of bureau of ordnance, 1869; and commander of the European squadron in 1873.

He was retired in 1875, and died in Washington, D. C., Feb. 17, 1893.

**Case-hardening,** the process of converting the surface of malleable-iron goods into steel, thereby making them harder, less liable to rust, and capable of taking on a better polish.

**Casein,** or **Cascine,** an albuminoid substance found in milk, soluble in alkali.

**Casey, Silas,** an American officer, born in East Greenwich, R. I., July 12, 1807; was graduated at the United States Military Academy in 1826; served in the Mexican and Civil Wars. Was given charge of organizing the volunteers near Washington; brevetted Major-General U. S. A., 1865; and retired in 1868. He died in Brooklyn, N. Y., Jan. 22, 1882.

**Casey, Thomas Lincoln,** an American military engineer, born in Madison Barracks, Sackett's Harbor, N. Y., May 10, 1831; the oldest son of Gen. Silas Casey. He graduated from West Point in 1852, and entered the Engineer Corps of the army. Was placed in charge of the construction of various National buildings; was president of the Board of Engineers for fortifications at New York. He died in Washington, D. C., March 25, 1896.

**Casgrain, Abbe Henry Raymond,** a Canadian historical writer; born in Riviere Quelle, Quebec, Dec. 16, 1831; ordained a priest Oct. 5, 1856; was professor at St. Anne's College till 1859, and vicar at Quebec Cathedral in 1860–73.

**Cashel,** a town in Tipperary county, Ireland, about 49 miles N. E. of Cork; containing the most interesting ruins in Ireland. These consist of a cathedral, founded in 1169; a stone-roofed chapel, built in 1127; Hore Abbey, founded in 1260; the palace of the Munster Kings; and a round tower 56 feet in circumference. Pop. (Est.) 3,000.

**Casiguran Bay,** a considerable inlet on the E. coast of Luzon, Philippine Islands, reached through Casiguran Sound.

**Casimir-Perier,** Jean Paul Pierre, a President of the French Republic, born in Paris, Nov. 8, 1847; was chosen successor of President Carnot on the first ballot (June, 1894). He resigned the office of President, Jan. 16, 1895, and was succeeded by Felix Faure. He died March 11, 1907.

**Caspian Gates,** a name given to the Russian fortress Dariel, situated in a narrow defile of the Caucasus, on the Terek, 80 miles N. of Tiflis.

**Caspian Sea,** a great salt lake of Western Asia, wholly enclosed, having no outlet whatever to the ocean, and surrounded by Tartary, Persia, the Caucasian countries, and the Russian governments of Orenburg and Astrakhan. Its greatest length from N. to S. is 760 miles; average breadth, 200; area, about 120,000 square miles.

**Cass, Lewis,** an American statesman, diplomatist, and soldier, born in Exeter, N. H., Oct. 9, 1782; served in the War of 1812; was governor of Michigan Territory (1813–1831); Secretary of War (1831–1836); minister to France (1836–1842); United States Senator (1845–1848); Presidential candidate (1848); United States Senator (1849–1857); Secretary of State (1857–1860). He died in Detroit, Mich., June 17, 1866.

**Cassation, Court of,** a French institution which gives the national jurisdiction coherency and uniformity without endangering the independence of the courts.

**Cassatt, Alexander Johnston,** railroad president; b. Pittsburg, Dec. 8, 1839. He was educated at Heidelberg Univ. and the Rensselaer Polytechnic Institute; became a railroad rodman in 1861, and rose through successive positions to president of the Pennsylvania Railroad Co. in 1899. He died Dec. 28, 1906.

**Cassatt, Mary,** an American figure-painter, born in Pittsburg, Pa.; studied art in Europe; and lived some time in Spain and France. As an etcher she ranks among the best. Her studio is at Paris.

**Cassava,** a South American shrub, about 8 feet in height, with broad, shining, and somewhat hand-shaped leaves, and beautiful white and rose-colored flowers. From Cassava the tapioca of commerce is prepared.

**Cassel,** or **Kassel,** formerly the residence of the Elector of Hesse-Cassel, is now the chief town in the province of Hesse-Nassau, Prussia, on the Fulda, 91 miles N. N. E. of Frank-

fort-on-the-Main. There are many fine walks and public gardens in the vicnity; among the latter are the gardens of Wilhelmshohe, in which is situated the ex-elector's summer palace, the residence of the late Emperor Napoleon III., after his being taken prisoner at Sedan, from Sept. 5, 1870, to March 19, 1871. Pop. (1919) 162,391.

**Cassia,** a genus of plants. Between 200 and 300 species are known. They are trees, shrubs, or herbs. They are found in India, Africa and the warmer parts of this country. Several furnish Senna.

**Cassianus, Joannes Eremita,** or **Joannes Massiliensis,** an early monk and theologian, born about 360. He died about 448, and was afterward canonized.

**Cassicus,** an American genus of insessorial birds, the Cassicans. The crested oriole, a South American bird, constructs a pouch-shaped nest of the length of 30 inches.

**Cassini, Count,** a Russian diplomatist, born in St. Petersburg. He was the first Russian ambassador to the United States.

**Cassiquiari,** or **Cassiquiare,** a large river of South America, in Venezuela, which branches off from the Orinoco and joins the Rio Negro, a tributary of the Amazon.

**Cassius,** full name, **Caius Cassius Longinus,** one of the assassins of Julius Cæsar; killed himself 42 B. C.

**Cassock,** a close garment resembling a long frock coat, worn by clergymen under the surplice or gown. In the Church of Rome they vary in color with the dignity of the wearer; those of priests being black, bishops purple, cardinals scarlet, and Popes white.

**Cassowary,** a family of birds. The shortness of their wings totally unfits them for flying, and it would seem impossible for nature to have furnished muscular power sufficient to move wings large enough to sustain their great weight in the air. The wings of the ostrich are of some assistance to it in running, but those of the cassowary are too short even to be of service in this way. Its whole plumage is so poorly supplied with feathers as to resemble, at a little distance, a coat of coarse or hanging hair. The cassowaries have three toes, all provided with nails.

**Cast,** in the fine arts, an impression taken by means of wax or plaster of Paris from a statue, bust, bas-relief or any other model, animate or inanimate.

**Castanet,** a small, slightly concave, spoon-shaped instrument of ivory or hard wood, of which a pair are fastened to the thumb and beaten together with the middle finger.

**Caste,** an hereditary class of society in India, the members of which are theoretically equal in rank, and, as a rule, follow the same profession or occupation. Through the long ages during which Indian caste has existed, the original four castes have split into an immense multitude. Different castes refuse to eat together or intermarry.

**Castellon, Francisco,** a Nicaraguan revolutionist, born about 1815. He was the leader in a revolt at Leon in 1853, which was unsuccessful, and fled to Honduras, whence he returned in June of the next year. It was by his invitation that the filibustering expedition under William Walker went from the United States in 1854. He died Sept. 2, 1855.

**Castile,** Spain an ancient kingdom comprising Old Castile and New Castile, the former extending from the Bay of Biscay southward to New Castile, divided into 8 provinces; area 25,405 square miles; pop. (Est.) 2,500,000. New Castile occupied the centre of the peninsula, and is now divided into 5 provinces; area, 28,010 square miles; pop. (Est.) 2,000,000. The Kingdom of Castile was united to that of Léon in 1230.

**Castilla, Ramon,** a Peruvian statesman; born in Tarapaca, Aug. 30, 1796. Early in life he served in the Spanish army, but in 1821 he joined the insurrectionists in Peru and distinguished himself in the successful struggle of that country for independence. In 1845 he was elected President of Peru. On the expiration of his term he retired to private life; but as the new President proved tyrannical, Castilla led a revolt against him, drove him into exile, and in 1855 was

himself re-elected President. He served till 1862. He died in Tarapaca, May 30, 1867.

**Castillon,** a town in the French department of Gironde, on the right bank of the Dordogne, 33 miles E. of Bordeaux by rail. Beneath its walls, on June 13, 1453, the English met with a signal defeat, their leader, Earl Talbot of Shrewsbury, and his son, being slain. Part of the battle is described in the fourth act of Shakespeare's "King Henry VI.," Part I.

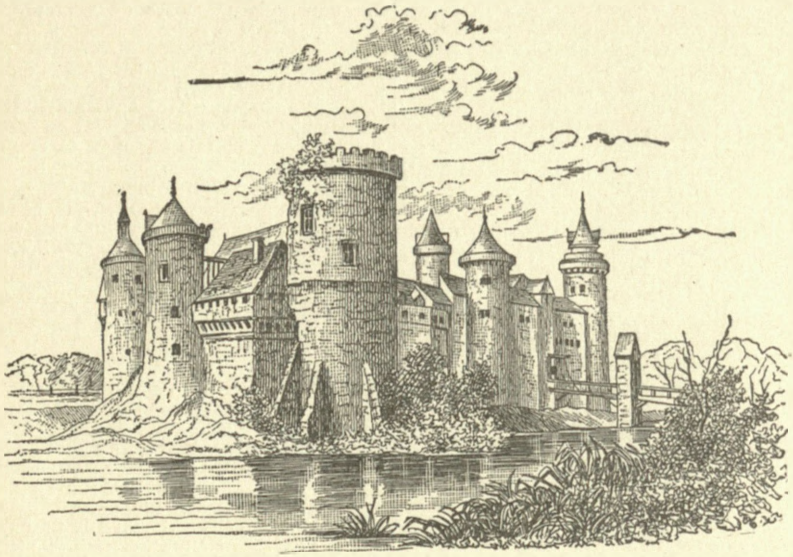
**Casting,** the running of melted metal into a mold prepared for the purpose, so as to produce an article of a certain shape.

**Cast-iron,** the name given to the iron obtained from the blast-furnace by running the fused metal into molds prepared for the purpose.

**Castle,** a building constructed for the purpose of repelling attack. The castella left by the Romans were constructed on the general model of their stationary encampments, and though they may have suggested the castles of the Middle Ages, they differed from them in being designed for military purposes only, and not as places of permanent residence.

**Castlebar,** the capital town of County Mayo, Ireland. It is on the Castlebar river, 10 miles N. E. of Westport. In 1641 occurred here the massacre of the English Parliamentary army in the Irish rebellion; in 1789 Castlebar was held for a fortnight by the French general, Humbert; and in 1846–1847 it suffered greatly from famine.

**Castle Garden,** the former immigrant depot in New York, at the point of Manhattan Island, in Battery Park. In the early days of the city the place was a small, fortified island a few feet from the main-land; later it became a public hall for assemblies and concerts. Here Jenny Lind made her American début. Many years ago the island was incorporated with the general area of the Battery by filling the intervening space with earth and rock; new buildings were erected, and the place was devoted to the purpose of landing steerage immigrants. In 1890 it ceased to be used as an immigrant



A FEUDAL CASTLE AT ROUEN, FRANCE.

depot, and was turned over to the Park Commissioners of the city of New York, and is now an aquarium.

**Castletown,** a seaport and former capital of the Isle of Man, on Castletown Bay, 11 miles S. W. of Douglas. Castle Rushen, now a prison, occupies the site of a Danish fortress of the 10th century, which was almost wholly demolished by Robert Bruce in 1313. The grounds of Rushen Abbey (11th century), near the station, are now market gardens. Near by is the small building where the House of Keys assembled for about 170 years.

**Castor and Pollux,** two demigods known by the ancients under the joint name of Dioscuri, that is, sons of Zeus or Jupiter. Mythology makes Jupiter reward their affection by translating the two brothers into constellations, under the name of Gemini —stars which never appear together, but when one rises the other sets, and so on alternately.

**Castor Oil,** a fixed oil obtained from the seeds of the castor oil plant. Given in doses or one or two teaspoonfuls, with a little peppermint water, it forms a gentle laxative for habits easily acted on by medicine; while a dose of a tablespoonful, or a little more, will almost always succeed.

**Castro, Inez de,** a lady of noble birth, secretly married to Pedro, son of Alphonso IV., King of Portugal, after the death of his wife Constantia (1345). The old King Alphonso, fearful that this marriage would injure the interests of his grandson Ferdinand, resolved to put Inez to death. Three noblemen, Diego Lopez Pacheco, Pedro Coelho, and Alvarez Gonsalvez, were his counsellors, and carried it out themselves by stabbing Inez within the convent where she lived. Two years after King Alphonso died, and Pedro, inducing the King of Castile to give up to him two of the murderers, who had taken refuge there (the third, Diego Lopez, managed to escape), put them to death with cruel tortures. The king then made public declaration of the marriage that had taken place between him and the deceased Inez; and had her corpse disinterred and placed on a throne, adorned with the diadem and royal robes, to receive the homage of the nobility. The body was then buried with honors. The story of Inez is one of the finest episodes in Camoens's "Lusiad."

**Castro, Cipriano,** President of Venezuela, b. 1858 near Capacho, of peasant parents. He became a coffee grower and politician, and in 1899 took Caracas with a few troops and was elected President. He embroiled his country with almost every civilized Power; was especially arrogant towards the United States; and in 1908-1909 fled the country and was deposed.

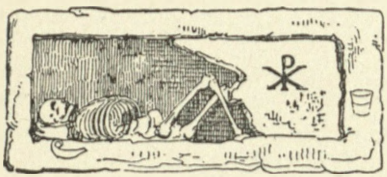
**Castro, Jose Maria,** a Costa Rican statesman, born in San Jose, Sept. 1, 1818; educated at the University of Leon, Nicaragua, and held positions under the government of Costa Rica. In 1846 he was Vice-President; in 1847 elected President. After Costa Rica withdrew from the Central American States, he resigned the presidency, but held diplomatic positions. From 1866 to the rise of the Jiménez government (1868), he was again President. He died in 1893.

**Casuistry,** that branch of ethical science which professes to deal with cases of conscience. It lays down rules or canons directing us how to act in all matters of moral doubt.

**Caswell, Richard,** an American lawyer, born in Maryland, Aug. 3, 1729; removed to North Carolina in 1746; was president of the Provincial Congress which framed the State Constitution (1776), and first governor of the State, three times re-elected; was also a delegate to the convention which framed the Federal Constitution in 1787. He died in Fayetteville, N. C., Nov. 20, 1789.

**Cat.** The cat is originally from the European forests. In its wild state it differs from the domestic animal in having a shorter tail, a flatter and larger head, and stronger limbs. At what period cats became inmates of human habitations, it is scarcely possible to determine, but there is good reason to believe that they were at first domesticated in Egypt. The varieties of this animal in a domestic state are very numerous. Of all the varieties the Persian, the Angora, and the new, tall and gray Malta variety are the most remarkable.

**Catacombs,** caverns, grottoes, subterraneous caves, destined for the sepulture of the dead. The name of catacombs, according to Gregory, was at first applied to designate exclusively the cave in which the bodies of St. Peter and St. Paul were buried, and



A CATACOMB GRAVE.

it was only at a later period that it came to be given to all the subterraneous passages which were used as public burying-places. It is now regarded as certain that in times of persecution the early Christians frequently took refuge in the catacombs; but it is not less certain that the catacombs served also as places of burial to the early Christians, and that in spite of the contrary opinion which prevailed for two centuries, the catacombs were not for the most part abandoned quarries, but were excavated by the Christians themselves.

The catacombs of Paris, situated on the left bank of the Seine river, are almost equally celebrated. By the light of wax tapers, a person may descend about 70 feet to a world of silence, over which the Parisian police keeps watch as strictly as over the world of noise and confusion above. He will then enter a gallery where only two can go abreast. A black streak on the stones of the walls points out the way, which, from the great number of by-passages, it would be difficult for the visitor to retrace without this aid or without guides.

**Catafalque,** a temporary and ornamental structure, placed over the coffin of a distinguished person or over a grave.

**Catalan,** a blast furnace for reducing ores, extensively used in the N. of Spain, particularly in the province of Catalonia.

**Catalani, Angelica,** an Italian singer, born in Sinigaglia, near Ancona, in October, 1779; in her seventh year she displayed such wonderful vocal powers that strangers flocked from all quarters to hear her. She made her début at Venice in 1797 and experienced a succession of triumphs in every country in Europe for upwards of 30 years. The Italian Opera in Paris was twice under her direction; but her husband's interference and extravagance brought her into much trouble. She died in Paris, June 13, 1849.

**Catalepsy,** a form of mental disorder, akin to hysteria, which is characterized by the person affected falling down suddenly in a state of real or apparent unconsciousness, and, save for some occasional muscular twitchings of the face and body, remaining rigid and statue-like for a period of time which varies from one minute to some hours or even days, and then all at once recovering consciousness as if aroused from sleep.

**Catalonia,** an old province of Spain, bounded N. by France, E. and S. E. by the Mediterranean, S. by Valencia, and W. by Arragon. The country is mountainous, but intersected with fertile valleys, while the mountains themselves are covered with valuable woods and fruit-trees. Wheat, wine, oil, flax, hemp, vegetables, and almost every kind of fruit are abundant. There are mines of lead, iron, alum, etc. Catalonia stands preeminent for the industry of its inhabitants, who speak the Catalan dialect. It comprises the modern provinces of Tarragona, Gerona, Serida, and Barcelona; area, 12,427 square miles; pop. (Est.) 2,200,000.

**Catalpa,** (from the native Indian name in Carolina, where it was discovered by Catesby in 1726), a genus comprising four or five species of trees, natives of North America, the West Indies, Japan, and China.

**Catamaran,** a kind of boat used by the Hindoos of Madras, Ceylon, and the parts adjacent. It is formed of three logs of timber, secured together by means of three spreaders and cross lashings through small holes.

**Catamarca,** a W. province of the Argentine Republic, sinking S. E. from the Andes to the Salt Marshes, which separate it from Cordoba. Area, 36,800 square miles; pop. (Est.)

115,000. Catamarca, the capital, lies 82 miles N. E. of Rioja.

**Catamount,** the North American tiger.

**Catanduanes,** a small island in the Philippine archipelago, E. of Luzon, about 90 miles long and 50 miles wide. It is mountainous and said to have rich gold deposits. Pop. (1903) 39,288, all civilized.

**Catania,** a city on the E. coast of Sicily, in the province of Catania, at the foot of Mount Etna. It has been repeatedly visited by tremendous earthquakes, one of the worst of which was in 1093, when 18,000 people were destroyed. Pop. (Est.) 220,000.

**Catapult,** a machine of the ancients for projecting missiles, chiefly arrows. They may be described as a kind of gigantic cross-bows.

**Cataract,** in medicine, an opacity of the crystalline lens of the eye, or of its capsule, or both. In cataract the lens becomes opaque, loses its transparency, and is no longer capable of transmitting the light. The causes of cataract are numerous. The treatment of cataract is by a surgical operation on the eye, and different operations have been tried and recommended. They all consist in removing the diseased lens from its situation opposite the transparent cornea.

**Cataract,** in geography, a waterfall, called in America briefly "falls." Many cataracts are remarkable for their sublimity, the grandest being the Falls of Niagara, on the Niagara river, between Lakes Erie and Ontario. The river, more than a mile above the falls, is divided by Grand and Navy islands, and has a gradual descent of 57 feet from this place. The banks preserve the level of the country, and in some parts rise 100 feet from the water. At the falls the river is ¾ of a mile broad, and the precipice which breaks its course curves irregularly so as to form nearly a semicircle on the Canadian side, but is straighter on the American side. An island, called Goat island, divides the cataract into two principal portions — the American fall on the E. and the Horseshoe on the W., or Canada side. The American fall descends almost perpendicularly from a height of 162 feet, and is about 1,000 feet in width. The Horseshoe fall is 4 feet less in height, but is wider and surpasses the other much in grandeur. The water rushes over the precipice with such force that it forms a curled sheet, which strikes the river below 50 feet from the base of the precipice, and visitors can pass behind the falling sheet of water.

The Montmorency river, which joins the St. Lawrence a few miles below Quebec, forms a magnificent cataract, 250 feet in height. The Missouri, in the upper part of its course, descends 357 feet in 16½ miles. There are four cataracts, one of 87, one of 19, one of 47, and one of 26 feet in height. The Yosemite river, in California, forms a series of magnificent falls, with a total descent of 2,600 feet. The first of them is a plunge of 1,500 feet, and is followed, after a series of beautiful cascades, by a final plunge of about 400 feet. Fully 200 miles from the mouth of the Hamilton river in Labrador there is a magnificent series of cataracts known as the Grand Falls, the largest cataract having a height of over 300 feet. In the republic of Colombia, South America, a magnificent cataract, called that of Tequendama, is formed by the Bogota river. The river precipitates itself through a narrow chasm, about 36 feet broad, to the depth of over 600 feet. On the Potaro river in British Guiana, is a grand fall known as the Kaieteur Fall, 740 feet high, and about 370 broad, a second fall of 88 feet occurring immediately below the principal one.

The most remarkable waterfall of Africa is a cataract on the Zambesi called Victoria Falls. The stream, about 1,860 yards broad, flowing over a bed of basaltic rock, is suddenly precipitated into a tremendous fissure to the depth of about 370 feet. The breadth of this fissure or crack is only from 80 to 90 yards, and the pent-up waters are then hurried through a prolongation of the chasm to the left with furious violence. The so-called Cataracts of the Nile are not, properly speaking, cataracts. A more correct designation for them would be "rapids." The Stanley Falls on the Kongo comprise seven cataracts. On the Tugela river, in Natal, there are the Tugela Falls. On the Umgeni river, in the same country, are the falls of

the Great Umgeni (364 feet) and the Kar Kloof Falls (350). There seem to be no waterfalls of more note in Asia than those of the Cavery river of India.

One of the grandest falls in Europe is that of the Ruikanfoss ("smoking fall"), on the Maan river, in Norway. The height of the cataract is 805 feet. In Sweden, on the Gotha river, a few miles below its outlet from Lake Wener, are the celebrated falls of Trollhatta, which have a height of over 100 feet. The cascade of Gavarnie, in the Pyrenees, is reputed the loftiest in Europe, being over 1,300 feet in height. Its volume of water, however, is so small that it is converted into spray before reaching the bottom of the fall. Another water fall in the Pyrenees is that of Seculejo, in the neighborhood of Bagneres-de-Luchon. It ascends from the Lac d'Espingo, into the Lac de Seculejo, or d'Oo, a singularly romantic mountain reservoir, from a height of 820 feet, and is the most copious of the Pyrenean waterfalls. The Swiss Alps likewise contain some falls of great sublimity.

**Catarrh,** a running or discharge which takes place from the various outlets of the body.

**Cat Bird,** a species of American thrush, which during the summer is found throughout the Middle and New England States, frequenting thickets and shrubberies. Its note is strikingly similar to the plaint of a kitten in distress. The plumage is a deep slate-color above and lighter below, and it is about 9 inches in length. During the winter it inhabits the extreme S. of the United States. The cat bird frequently attacks the common black snake, which, in the absence of the bird, rifles its nest.

**Catechism,** any compendious system of teaching drawn up in the form of question and answer. The first Christian catechisms are said to have been composed in the 8th or 9th century. Luther published a short catechism in 1520, and his larger and smaller ones in 1529. The Geneva Catechism was sent forth in 1536. The Church of England Catechism was first published in 1549 or 1551, but in a shorter form than now. The catechism of the "orthodox" Greek Church was published in 1542. In 1566 the Council of Trent produced a catechism; the Rakovian Catechism, which is Socinian, was put forth in 1574, and the shorter and larger catechisms of the Westminster Assembly of Divines appeared, the former in 1647, and the latter in 1648. Catechisms of other sects have been published.

**Catechu,** a gum, is soluble in water; on exposure to the air the solution turns red. Catechu has been used to prevent the formation of boiler incrustations.

**Catechumen,** he who learns the elements of any science; one who is undergoing a course of religious instruction with a view to his admission into the Church.

**Caterpillar,** the larvæ of butterflies, moths, and hawk-moths.

**Cat-fish,** the sea-wolf, a native of the West Indian seas, so called from its round head and large, glaring eyes; also a fresh-water fish of different species, the common cat-fish, called also horned pout, and bull-head.

**Cat-gut,** the name given to the material of which the strings of many musical instruments are formed. It is made from the intestines of the sheep, and sometimes from those of the horse, but never from those of the cat.

**Cathari,** a name akin to "Puritans," applied at different times to various sects of Christians. It became a common appellation of several sects which first appeared in the 11th century in Lombardy and other countries, and which were violently persecuted for their tenets and usages. They had many other local names. The Cathari proper held a community of goods, abstained from war, marriage, and the killing of animals, and rejected water baptism.

**Catharine I.,** Empress of Russia. The early history of this remarkable woman is uncertain. According to some accounts she was the daughter of a Swedish officer named Rabe, who died shortly after she was born; according to others her father was a Catholic peasant in Lithuania, by name Samuel. It is said that she was born in 1686, named Martha, and placed by her parents in the service of a Lutheran clergyman. She re-

moved to Marienburg, and entered the service of a clergyman named Gluck, who caused her to be instructed in the Lutheran religion. Here she was married to a Swedish dragoon. But a few days after he was obliged to repair to the field, and the Russians, within a short period, took Marienburg in 1702. Martha fell into the hands of General Tcheremetieff, who relinquished her to Prince Menzikoff. While in his possession she was seen by Peter the Great, who made her his mistress. She became a proselyte to the Greek Church, and assumed the name of Catharine Alexiewna. In 1712 the emperor publicly acknowledged Catharine as his wife. Upon the death of Peter she was proclaimed empress and autocrat of all the Russias. Catharine died suddenly on May 17, 1727, in the 42d year of her age.

**Catharine II.,** Empress of Russia; born in Stettin, May 2, 1729, where her father, Christian Augustus, Prince of Anhalt-Zerbst, and Prussian field-marshal, was governor. The empress Elizabeth of Russia, daughter of Peter the Great, and Catharine I., selected her for wife of Peter, her nephew and heir, and the marriage took place, September 1, 1745. It was not a happy one. Among the friends of her husband Count Soltikoff was distinguished for talent and the graces of his person. He attracted the attention of Catharine, and an intimate connection between them was the consequence. When Soltikoff grew indifferent a young Pole, Stanislaus Augustus Poniatowski, celebrated both for his good and ill fortune, gained the affections of the grand princess. Their intimacy was known to the empress, but did not appear to displease her; and it was at her recommendation that Augustus III. appointed Poniatowski his ambassador at the court of St. Petersburg. This connection created alarm at Paris. In January, 1762, Elizabeth died, and Peter III. ascended the throne. The emperor now became still more alienated from his wife. Peter lived in the greatest dissipation, and on such intimate terms with a lady of the court, named Elizabeth Woronzoff, that it was generally thought that he would repudiate Catharine and marry his mistress. Peter was imprisoned and murdered by the Orloffs, and Catharine became empress. A fit of apoplexy ended her life on Nov. 17, 1796. Apart from her debauchery she was an enlightened and progressive ruler, and deserves to be remembered gratefully by Americans for having refused to sell her subjects to George III. to fight in the Revolution.

**Catharine de' Medici,** wife of Henry II., King of France; born in Florence in 1519, the only daughter of Lorenzo de' Medici, Duke of Urbino, and the niece of Pope Clement VII. Francis I. consented that his son Henry should marry her only because he did not believe she ever would ascend the throne, and because he was in great want of money, with which Lorenzo could furnish him. The marriage was celebrated at Marseilles in 1533. The massacre of St. Bartholomew was her work. She had two daughters, Elizabeth, married to Philip II. of Spain in 1559, and Margaret of Valois, married to Henry of Navarre, afterward Henry IV. She died in 1589.

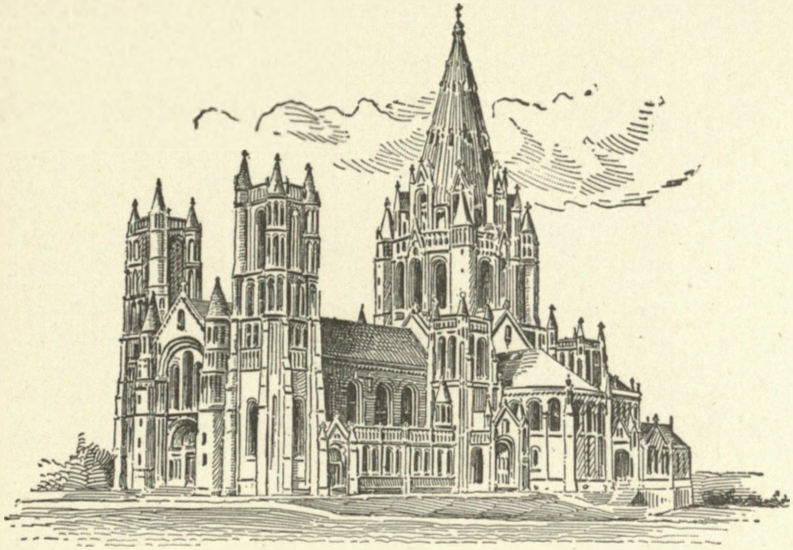
**Catharine of Arragon,** Queen of England, the youngest daughter of Ferdinand of Arragon and Isabella of Castile; born in 1483 or 1485. In 1501 she was married to Arthur, Prince of Wales. Her husband dying about five months after, the king caused her to be contracted to his remaining son, Henry, and a dispensation was procured from the Pope for that purpose. In his 15th year the prince made a public protest against the marriage; but yielding to the representations of his council, he consented to ratify the contract, and on his accession to the throne in 1509 was crowned with her. The want of male issue proved a source of disquietude to him, and scruples, real or pretended, at length arose in his mind concerning the legality of their union, which were enforced by a growing passion for Anne Boleyn, one of the queen's maids of honor. He made application to Rome for a divorce from Catharine. An encouraging answer was returned, and a dispensation promised. Overawed, however, by the power of the Emperor Charles V., Catharine's nephew, the conduct of the pontiff became embarrassed and hesitating. Catharine could not be induced to consent to an act which

would render her daughter illegitimate. Being cited before the papal legates, Cardinals Wolsey and Campeggio, she declared that she would not submit her cause to their judgment, but appealed to the court of Rome. The subterfuges of the Pope induced the king to decide the affair for himself; and the resentment expressed on this occasion by the court of Rome provoked him to throw off his submission to it, and declare himself head of the English Church — an act of royal caprice more important than most in history. In 1532 he married Anne Boleyn; upon which Catharine retired to Ampthill. Cranmer, now raised to the primacy, pronounced the sentence of divorce. She died in January, 1536. Shortly before her death she wrote a letter to the king, recommending their daughter (afterward Queen Mary) to his protection, praying for the salvation of his soul, and assuring him of her forgiveness and unabated affection.

**Catharine of Braganza,** wife of Charles II., King of England, and daughter of John IV., King of Portugal, was born in 1638. In 1662 she married Charles II., but her husband's infidelities and neglect, and her childlessness were a source of mortification to her. In 1693 she returned to Portugal, where, in 1704, she was made regent, and in the conduct of affairs during the war with Spain showed marked ability. She died in 1705.

**Cathartic,** having the property or power of cleasing the bowels by promoting the evacuations of excrements, etc., purgative.

**Cathedral.** The principal church of a diocese, and the Cathedral city is the seat of the bishop of the diocese, and his throne is placed in the Cathedral church, which is the parish church of the whole diocese. The distinction between Cathedral and collegiate churches consists principally in the see of the bishop being at the former. The governing body of a Cathedral is called the dean and chapter. St. Peter's, at Rome, is unequaled in magnitude and splendor by any other Christian fane in the world. St. Peter's was begun in 1503, and was consecrated in 1626. Milan Cathedral was commenced in 1387, but is still



CATHEDRAL OF ST. JOHN THE DIVINE, NEW YORK CITY.

unfinished. The Duomo, Florence, was begun in 1298, and was finished in 1444. The Cathedral at Cologne was begun in the middle of the 13th century, and only partly finished in 1509, after which work was not resumed on it till 1830. In 1863 the interior was thrown open to the public. In 1880 it was finished. The Cathedral at Strasburg was completed in 1601, and is one of the grandest Gothic structures in Europe. Notre Dame, Paris, was begun about 1163. St. Paul's, London (the present edifice, the first having been destroyed in the great fire of 1666), was begun in 1675, and was finished in 1710. It is built in the form of a Latin cross. The Cathedral of Mexico was begun in 1573, and was finished in 1667. The Cathedral of St. John the Divine (P. E.), in New York, will, when completed, be the most splendid structure of the kind on this continent.

**Cathedral Peak,** a peak of the Sierra Nevada Range, situated in Mariposa county, Cal. Height, 11,000 feet.

**Catherine Harbor,** a Russian port in the far N. on the Murman coast of the Kola peninsula. It was formally opened in 1900, the city having been built by imperial command.

**Catheter,** a term applied in surgery to a tube, usually of silver or india-rubber, which is introduced into the bladder through the urethra, for the purpose of drawing off the urine when it cannot be discharged in the natural way.

**Catholic Benevolent Union,** an organization of Roman Catholics in the United States, founded in 1881 as a fraternal and protective order.

**Catholic Church,** the universal Church, the whole body of true believers in Christ; but the term is often used as equivalent to the Roman or Papal Church.

**Catholic Epistles,** the epistles in the New Testament addressed not to individual men or to individual churches, but to the general body of Christians. They are James, I and II Peter, I John and Jude.

**Catholic Knights of America,** an organization of Roman Catholics in the United States, founded in 1887 as a fraternal and protective order.

**Catholic University of America,** an institution in Washington, D. C., founded in 1889, under the auspices of the Roman Catholic Church, for postgraduate study exclusively.

**Catiline (Lucius Sergius Catilina),** a Roman conspirator; born about 108 B. C. Disappointed in his ambition he plotted a massacre of his political antagonists, and the destruction of the Roman Republic. Cicero exposed the conspiracy, and executed the leading conspirators, except Catiline, who fell in battle, January 5, 62 B. C., together with his whole army.

**Cat Island,** or **Guanahani,** an island of the Bahama group for centuries supposed to be identical with the San Salvador of Columbus, a surmise now disproved. Length, 36 miles; breadth, 3 to 7 miles; population, 2,378.

**Catlin, George,** an American author and painter, born in Wilkesbarre, Pa., June 26, 1796. From 1832 till 1839 he traveled and lived among the Indians of America, of whom he painted hundreds of portraits. He died in Jersey City, N. J., Dec. 23, 1872.

**Cato, Marcus Porcius,** a great Roman statesman, called (to distinguish him from the censor, his great grandfather) Cato of Utica, the place of his death; born 95 B. C. He opposed Cæsar, and upon the triumph of the latter, he killed himself at Utica, Africa, 46 B. C.

**Cato, Marcus Porcius, the Censor,** surnamed Priscus; born in Tusculum, 234 B. C. He served his first campaign, at the age of 17, under Fabius Maximus, when he beseiged Capua. Five years after he fought under the same commander at the siege of Tarentum. After the capture of this city he became acquainted with the Pythagorean Nearchus, who initiated him into the sublime doctrines of his philosophy, with which, in practice, he was already conversant. After the war was ended Cato returned to his farm. Cato was poor and unknown; but his eloquence and the integrity and strength of his character, soon drew the public attention to him, and he was chosen to the highest offices. He died in 149 B. C.

**Catorce,** a mining town of San Luis Potosi, Mexico, which received its

name, signifying 14, from a gang of robbers, formerly a constant menace to its inhabitants. When the French invaded Mexico, a mint was started here, and worked until 1867. The amount coined was about $52,000,000. The population is variable, ranging from 8,000 to 15,000, according to the state of mining.

**Catskill Mountains,** a chain of the Appalachian system, beginning in Greene county, N. Y., on the W. side of the Hudson river. The scenery of these mountains is remarkably picturesque and beautiful, while from the higher points may be seen extensive and interesting views, taking in a radius from the Green Mountains of Vermont to the West Point Highlands.

**Cattegat, or Kattegat,** the bay or arm of the sea between the E. coast of Jutland and the W. coast of Sweden, to the N. of the Danish islands. It is connected with the Baltic Sea by the Great and Little Belt, and by the Sound, and the Skager Rack connects it with the North Sea. The length of the Cattegat is about 150 miles, and its greatest breath 85 miles. What has been pronounced the greatest naval battle in history was fought here on May 31 and June 1, 1916, between the German High Sea Fleet, that for a long time had been inactive at Kiel, and the British Grand Fleet, which included the British Battle Cruiser Squadron. The latter was first engaged, and when its support rushed into sight the German ships that were left returned hurriedly to Kiel. The British losses were three battle cruisers, two armored cruisers and eight destroyers. The German losses were reported as three battleships, five light cruisers, six torpedo boat destroyers, and one submarine.

**Cattel, James McKeen,** an American psychologist, born in Easton, Pa., May 25, 1860, graduated at Lafayette College and studied at Leipsic, Paris, Geneva, and Gottingen, and became Professor of Experimental Psychology in Columbia University, 1891.

**Catubig,** a small town in the island of Samar, Philippine Islands. The place is garrisoned by United States troops, who, in June, 1900, withstood an attack by 600 insurgents. Pop. (Est.) 10,000.

**Catullus, Valerius** (whose prænomen is stated by some to be Caius, by other Quintus), a famous Roman poet; born 86 B. C. The common opinion is that he died 57 B. C., in the 30th year of his age, but this is no doubt erroneous, as there are allusions in his own works which prove him to have been alive in the consulship of Vatinius as late as 47 B. C.

**Catulus, Quintus Lutatius,** a Roman general, historian, and poet, born about 152 B. C., died 8. B. C.

**Cauca,** a river of Colombia, in South America, which, after a N. course of 600 miles, falls into the Magdalena. Its valley is one of the richest and most populous districts of the continent, and it gives name to the second largest Colombian State; area, 20,403 square miles; population (Est.) 240,000. It possesses the most productive platinum mine in America. Capital, Popayan; pop. 18,724.

**Caucasia,** a province of the Russian Empire, between the Black and Caspian Seas, and extending from the frontier of Persia on the S. to the Kuma-Manych depression on the N. The Caucasus Mountains divide the territory into Cis-caucasia and Trans-caucasia. The total area of Caucasia, the two parts being nearly equal, is 181,173 square miles, and the population, in 1914, Trans-caucasia being the most thickly settled, (Est.) 15,000,000.

**Caucasian Race,** the white man, one of the three more remarkable varieties of the species Man, the two others being the Yellow, or Mongolian, and the Black, or Ethiopian. The Caucasian Race occupies all Europe and Western Asia as far as the Ganges, likewise Northern Africa and the greater part of America.

**Caucasus,** a chain of mountains between Europe and Asia, extending from S. E. to N. W., and occupying the isthmus between the Black and Caspian seas. The length is computed at 700 miles, the breadth is various; from Mosdok to Tiflis it may be estimated at 184 miles.

**Caucus,** in the political nomenclature of the United States, a gathering preliminary to a public meeting of

citizens for election or for other purposes, generally political.

**Caudex,** in botany, the stem of a tree, more especially the scaly trunk of palms and tree-ferns.

**Caudine Forks,** a pass of Southern Italy, in the form of two lofty fork-shaped defiles, in the Apennines (now called the valley of Arpaia), into which a Roman army was enticed by the Samnites, 321 B. C., and being hemmed in was forced to surrender.

**Caul,** a popular name for a membrane investing the viscera, such as the peritoneum or part of it, or the pericardium; also a portion of the amnion or membrane enveloping the fetus, sometimes encompassing the head of a child when born.

**Cauliflower,** an esculent vegetable for which a very rich, light, warm soil is required. The Cauliflower is light, easily digested, and nutritious.

**Caulking,** of a ship, driving a quantity of oakum into the seams of the planks in the ships' decks or sides in order to prevent the entrance of water. After the oakum is driven very hard into these seams it is covered with hot melted pitch to keep the water from rotting it.

**Caura,** a river of Venezuela, rises among the sierras of the frontier, and flows N. N. W. to the Orinoco. On both sides stretches the territory of Caura (22,485 square miles), with immense forests of tonka beans.

**Caus, Caulx,** or **Cauls, Salomon de,** a French engineer, born in Dieppe in 1576. At Frankfort, in 1615, appeared his "Causes of Kinetic Energy," which contains a description of a machine for forcing water to a high level by steam, being the forerunner of the modern steam engine. He died in Paris, June 6, 1626.

**Cause,** that which produces an effect. In law, suit or action.

**Caustic,** a name given to substances which have the property of burning, corroding, or disintegrating animal matter; or of combining with the principles of organized substances and destroying their texture.

**Cautin,** a river in Chile; flows W. through a province named after it, and empties into the Pacific Ocean. Its length is about 200 miles. The province of Cautin has an area of 3,127 square miles; pop. 78,221; capital, Temuco; pop. 7,078.

**Cautionary Towns,** four towns in Holland (the Briel, Flushing, Rammekins, and Walcheren), so named because they were given to Queen Elizabeth in 1585 as security for their repaying her for assistance in their struggle with Spain. They were restored to Holland by James I.

**Cavaignac, Jacques Marie Eugene Godefroy,** a French politician, son of Louis Eugene Cavaignac, born May 22, 1853. In August, 1898, he added to the excitement over the Dreyfus prosecution by forcing Lieutenant-Colonel Henry to confess to a forgery of certain letters bearing on the case, that officer committing suicide shortly after. C. died Sept. 25, 1905.

**Cavaignac, Louis Eugene,** a French general who became famous in connection with the events of 1848; born in Paris, Oct. 15, 1802. Cavaignac was in Africa when the revolution of February, 1848, took place. He was offered the portfolio of the minister of war, and accepted it. The measures which he adopted to guard against the crisis which was evidently approaching were prompt and decisive. In a few days an army of nearly 30,000 men was assembled in and around Paris. On June 23 the terrible Communist insurrection burst forth, and for three days Paris presented the most dreadful scene of tumult and bloodshed which had been witnessed there since the massacre of St. Bartholomew. About 15,000 persons perished, and property was destroyed to the value of upward of $1,000,000. By the energy of General Cavaignac, aided by the loyalty of the army and the national guard, the insurrection was suppressed on June 26. On that day the National Assembly delegated the entire executive power to Cavaignac as dictator, who resigned it again into its hands on the 29th, and received it anew on the same day. He was defeated in the elections for the presidency in the month of December following, and Louis Napoleon was preferred to the office. On Dec. 20 he resigned his dictatorship. The last years of his life were spent at his country-seat, where he expired suddenly of heart disease on Oct. 28, 1857.

**Cavaille-Coll, Aristide,** a French organ builder, born in Montpelier, Feb. 2, 1811. He invented the pressure method for sounding tones of different depths and heights. He died in Paris, Oct. 13, 1899.

**Cavalier,** a horse-soldier; an armed horseman; a knight; the name given to the supporters of King Charles I., during the Great Civil War in England.

**Cavalier, Jean,** a leader of the Camisards, or Protestants of Cevennes, when forced into rebellion against Louis XIV., by the persecutions of the Catholics, born in Cevennes, 1679. He defeated the best generals that came against him, and compelled Marshal de Villars to make a treaty with him. He died in 1740.

**Cavalotti, Felice,** an Italian statesman, born in Milan, Nov. 6, 1842. He fought under Garibaldi and gained celebrity; was a political journalist. He fought 32 duels, in the last of which he was killed in Rome, March 6, 1898.

**Cavalry,** one of the three great classes of troops. The use of cavalry is probably nearly as ancient as war itself; but some nations used chariots in war before they became accustomed to fight on horseback. The Egyptians are said to have had cavalry before the time of Moses. The Israelites often had to encounter cavalry, but had none themselves till the time of Solomon. Cavalry are usually armed with straight swords or sabers, pistols, and carbines. In the United States army a cavalry regiment consists of six squadrons of two troops or companies, containing 63 men each.

**Cave,** or **Cavern,** an opening produced by nature in the solid crust of the earth. Caves are principally met with in limestone rocks, in gypsum, sometimes in sandstone, and in volcanic rocks (basalt, lava, tufa, etc.).

The most celebrated caverns in the United States are Madison's Cave, in Rockingham Co., Va.; Weyer's Cave, in the same county; Luray Cave, in Page Co., Va.; and the Mammoth Cave, in Edmondson Co., Ky., which incloses an extent of about 40 miles of subterraneous windings. One of its chambers, called the Temple, is said to cover a space of nearly 5 acres, and to be surmounted by a dome of solid rock 120 feet in height. The Cumberland mountains, in Tennessee, contain some curious caverns, in one of which, at a depth of 400 feet, a stream was found with a current sufficiently powerful to turn a mill. Another cave in the same State is named Big Bone Cave, from the bones of the mastodon which have there been discovered. In the Raccoon mountains, near the N. W. extremity of Georgia, is a cave called Nickojack Cave, which has been explored to the distance of 3 miles. A stream of considerable size runs through it, which is interrupted by a fall. Caves are sometimes found which exhale poisonous vapors. The most remarkable known is the Grotto del Cane, a small cave near Naples. In Iceland there are many caves, formed by the lava from its volcanoes. In the volcanic country near Rome there are many natural cavities of great extent and coolness, which are sometimes resorted to as a refuge from the heat. In South America is the cavern of Guacharo, which is said to extend for leagues.

**Caveat.** In the United States this name is given to a notice lodged in the patent-office by a person who wishes to patent an invention, but desires to be protected till he has perfected it. It stands good for a year.

**Cave Dwellers,** prehistoric men dwelling in caves, and cave-dwelling animals of corresponding periods; also cave-dwelling men of more recent historic times. In America, caves with human remains have been investigated in a number of States. There are remains that have been deposited within the period of authentic history. There are still cave-dwelling Indians in Northern Mexico.

**Cavendish, Frederick Charles, Lord,** second son of the Duke of Devonshire, an English statesman; born in Eastbourne, Nov. 30, 1836. He sat in Parliament from 1865 till 1882, when he succeeded Mr. Forster as chief secretary for Ireland. On May 6, he and Mr. Burke were stabbed to death in the Phœnix Park. Eight months later, twenty "Irish Invincibles" were tried for the murder, and, Carey and two others having turned Queen's evidence, five of the rest were hanged, three sentenced to penal servi-

tude for life, and the remaining nine to various terms of imprisonment. Carey disappeared; but in July news came from the Cape that he had been shot dead by an Irishman named O'Donnell. O'Donnell was taken back to London and hanged.

**Cavendish,** or **Candish, Thomas,** an English circumnavigator in the reign of Elizabeth; born about 1555. Having collected three small vessels for the purpose of making a predatory voyage to the Spanish colonies, he sailed from Plymouth in 1586, took and destroyed many vessels, ravaged the coasts of Chile, Peru, and New Spain, and returned by the Cape of Good Hope, having circumnavigated the globe in 2 years and 49 days, the shortest period in which it had then been effected. In 1591 he set sail on a similar expedition, during which he died, in 1592.

**Cave Temple,** a cave used as a temple, but the name is especially applied to temples excavated in the solid rock.

**Caviare,** a prepared article of food consisting of the salted roes of several kinds of large fish, chiefly of the common sturgeon. It is prepared chiefly in Russia, where it is greatly esteemed as food. It is used also in America.

**Cavité,** a small seaport of Luzon, Philippine Islands; about 11 miles S. W. of Manila and fronting directly on the bay; pop. (Est.) 6,000. The town dates almost from the first occupation of the Spaniards and was elaborately fortified with docks and arsenals in the 18th century. On May 1, 1898, Admiral Dewey won his great victory off Cavité. The Americans immediately occupied the arsenal, and upon the arrival of American troops Cavité was fortified and made a naval and military base. The province of the same name has an area of 2,188 square miles; pop. (Est.) 140,000.

**Cavour, Count Camillo Benso di,** an Italian statesman, born in Turin, Aug. 10, 1810. He became a member of the Sardinian Chamber of Deputies in 1849. In 1852 he became premier, and took an active part in cementing an alliance with Great Britain and France, and making common cause with these powers against Russia during the Crimean War. This caused a war with Austria, in which Sardinia was aided by France (1859). In 1860 Garibaldi's expedition to Sicily took place; but toward this Count Cavour was forced to maintain an apparent coldness. He lived to see the meeting of the first Italian Parliament, which decreed Victor Emmanuel king of Italy. He died June 6, 1861.

**Cavy,** a genus of South American rodents. It includes the guinea pig. All have a short tail, or none at all, and bear a slight resemblance to a pig.

**Cawnpur,** a town, India, Northwest Provinces, on the right bank of the Ganges, which is here about a mile wide, 130 miles N. W. from Allahabad, 628 miles N. W. of Calcutta, and 266 miles S. E. of Delhi. Pop. (1921) 216,436. In 1857 the native regiments stationed here mutinied and marched off, placing themselves under the command of the notorious Nana Sahib. General Wheeler, the commander of the European forces, defended his position for some days, but was induced to surrender to the rebels on condition of his party being allowed to quit the place uninjured. This was agreed to; but after the European troops, with the women and children, had been embarked in boats on the Ganges, they were treacherously fired on by the rebels; many were killed, and the remainder conveyed back to the city, where the men were massacred and the women and children placed in confinement. The approach of General Havelock to Cawnpur roused the brutal instincts of the Nana, and he ordered his hapless prisoners to be slaughtered, and their bodies to be thrown into a well. The following day he was obliged to retreat to Bithoor.

**Caxamarca,** or **Cajamarca,** a department and town of Peru; area of the department 12,538 square miles; pop. (1906, est.) 333,310. The town is situated about 70 miles from the Pacific Ocean, 280 N. of Lima. Pop. 10,000. It was the scene of the imprisonment and murder of Atahualpa, the last of the Incas.

**Caxias,** (1), a town of Brazil, in the State of Maranhao, on the navigable Itapicuru, 190 miles from its mouth, with an active trade in cotton. Pop. 10,000. (2) an Italian agricul-

tural colony in the Brazilian State of Rio Grande do Sul, founded in 1875. Pop. 13,680.

**Caxton, William,** an English printer and scholar, born in the Weald of Kent, about 1422. His "Recuyell (collection) of the Histories of Troy," translated by him from the French, appears to have been printed in 1474, most probably at Bruges in Belgium. It was the first book in English reproduced by typography. He set up a printing-office in Westminster, 1477; and on Nov. 18 of that year issued "The Dictes and Sayings of the Philosophers," folio, a work ever memorable as the first book printed in England. He printed in all 71 separate works. He died in 1491.

**Cayenne,** a fortified seaport, capital of French Guiana, on an island at the mouth of a river of the same name. Cayenne is chiefly known as a great French penal settlement. The climate is extremely unwholesome for Europeans, large numbers of the convicts having been carried off by various malignant fevers. The name of the capital is sometimes used for the whole of French Guiana. Pop. 13,527.

**Cayenne Pepper,** or **Capsicum,** the name given to the powder formed of the dried and ground fruits, and more especially the seeds, of various species of Capsicum.

**Cayes,** or **Aux Cayes,** a seaport of Haiti, on the S. W. coast, 95 miles W. S. W. of Port-au-Prince. Pop. 12,000.

**Cayley, Arthur,** an English mathematician, born in Richmond, Surrey Co., England, Aug. 16, 1821. In 1882 he gave a course of mathematical lectures at Johns Hopkins University. He died Jan. 26, 1895.

**Cayman Islands,** three islands situated about 140 miles N. W. of Jamaica, of which they are dependencies. Grand Cayman, the largest and the only one inhabited, is 20 miles long and from 7 to 10 broad, and has two towns or villages. Pop. about 5,560. The other two islands are Little Cayman and Cayman Brac.

**Cayuga Indians,** a tribe of Indians dwelling in New York State, one of those forming the six Nations. They lived around Cayuga Lake, where less than 200 of them remain.

**Cayuga Lake,** a lake of Central New York, noted for the picturesque scenery of its surroundings.

**Cayuse,** or **Willetpoo,** a tribe of North American Indians who formerly inhabited the region between the Des Chutes river and the Blue Mountains, Oregon, and also parts of Washington, S. of the Yakima river.

**Cazauran, Augustus R.,** a Franco-American author and playwright, born in Bordeaux, France, Oct. 31, 1820. In 1848 he became implicated in an Irish rebellion, fled to the United States, and obtained employment as a reporter. During the Crimean War he acted as war correspondent to a London daily. When Lincoln was shot he was at the theater as dramatic critic, and wrote the first account of the assassination. He died in New York, Jan. 27, 1889.

**Ceara,** a State of Brazil, on the N. coast, with an area of 40,247 miles, pop. (Est.) 1,400,000. The interior presents a succession of wooded hills and wide plateaus. The capital, Ceara, had formerly only an open roadstead, but extensive harbor improvements, with breakwater and viaduct, have been provided. It is the terminus of a railway to Baturite and has a large trade. Pop., 33,000.

**Cebu,** one of the Philippine Islands, between Luzon and Mindanao, 135 miles long, with an extreme width of 30 miles. Sugar cultivation and the manufacture of abaca are the chief industries. Pop. (Est.) 700,000. The town of Cebu, on the E. coast, the oldest Spanish settlement in the Philippines, is a place of considerable trade. It is about 60 miles from Manila and has a population of 40,000.

**Cebus,** a genus of American monkeys, characterized by a round head and short muzzle, long thumbs, and a long, prehensile tail, entirely covered with hair.

**Cecil, Robert,** Earl of Salisbury, an English statesman, second son of William Cecil, born about 1563. He went to France as assistant to the English ambassador. On the death of Sir Francis Walsingham he succeeded him as principal secretary. Having secretly supported the interests of James I. previous to his accession to the crown he was continued in office

under the new sovereign and raised to the peerage. In 1608 he was made Lord High-Treasurer, an office which he held till his death, in 1612.

**Cecropia Moth,** the largest moth of the United States. It belongs to the silk worm family, and its caterpillar spins a large cocoon from which a coarse silk may be prepared.

**Cedar,** a tree which forms large forests on the mountains of Syria and Asia Minor. It is an evergreen, grows to a great size, and is remarkable for its durability. Of the famous cedars of Lebanon comparatively few now remain, and the tree does not grow in any other part of Palestine. Cedar timber was formerly much prized, but in modern times is not regarded as of much value, perhaps from the trees not being of sufficient age. The name is also applied to many trees which have no relation to the true cedar, as the Bermuda cedar, used for making pencils, the red or Virginian cedar, the Honduras cedar, and the red cedar of Australia.

**Cedar Bird,** a name given to the American wax-wing, from its fondness for the berries of the red cedar.

**Cedar Creek,** scene of a memorable battle between Union and Confederate armies in the American Civil War, at Alacken, Shenandoah Co., Va. On Oct. 19, 1864, at daylight, during Gen. Sheridan's absence, his army was surprised by the Confederates under Early, who turned the left flank and took the camps of the 8th and 19th corps, with 20 guns and some prisoners. Gen. Wright, in command of the Federals, retreated and reformed their line. Gen. Sheridan arriving 10 A. M., after a famous "ride," celebrated in T. B. Read's poem, repelled an assault, routing the Confederates, retaking what had been lost, capturing 30 guns and 2,000 prisoners. The cavalry pursued next day, and in the night Early retreated.

**Cedar Lake,** a lake of Canada, in the Saskatchewan district, a sort of expansion of the Saskatchewan river, receiving the waters of this large stream to pour them over the Grand Rapids into Lake Winnipeg. Between Grand Rapids and Cedar lake is another expansion, known as Cross lake. Cedar lake is nearly 30 miles long, and where widest 25 broad; area about 312 square miles.

**Cedar Mountain,** an elevation in Culpepper Co., Va., where, in the American Civil War, on Aug. 9, 1862, Gen. Banks was defeated by a superior Confederate force under General Jackson, and retired for reënforcements from General Pope, with a loss of 1,400 killed and wounded, 400 prisoners, and many missing. The Confederates, who held the field two days and then fell back to meet Lee at Gordonsville, lost 1,314.

**Cedar Rapids,** a city in Linn county, Ia.; on the Cedar river, here spanned by a handsome bridge, and on the Burlington, Cedar Rapids & Northern and other railroads; 80 miles S. W. of Dubuque; has an extensive trade in corn, oats, hay, dairy products, poultry, horses, cattle, and swine; manufactures cereal foods, farming implements, windmills, cutlery, and furniture; and contains the shops of the Burlington, Cedar Rapids & Northern railroad, large pork-packing plants, Coe College (Presb.), and College of the Sacred Heart (R. C.). Pop. (1920) 45,566.

**Celandine,** a name given to two plants, the greater celandine and the lesser celandine.

**Celaya,** a town in the Mexican State of Guanajuato, on the Rio Laja, about 150 miles N. W. of the City of Mexico. The burning of its bull-ring, on Easter Sunday, 1888, caused considerable loss of life. Population, (Est.) 25,000.

**Celebes,** one of the larger islands of the Indian Archipelago, between Borneo on the W. and the Moluccas on the E. It consists mainly of four large peninsulas separated by three deep gulfs; total area, 72,070 square miles. No part of it is more than 70 miles from the sea. Celebes is mountainous and has several active volcanoes. It has also broad grassy plains and extensive forests. Gold is found in all the valleys of the N. peninsula. Copper occurs at various points, and tin also. Diamonds and other precious stones are found. The island is entirely desitute of feline or canine animals, insectivora, the elephant, rhinoceros, and tapir, etc. The

inhabitants may be classed into two groups: the Mohammedan semi-civilized tribes, and the pagans, who are more or less savages. The capital is Macassar, in the S. W. of the island. Pop. (Est.) 2,400,000.

**Celery,** the common English name of a species of parsley. The blanched leaf-stalk of the cultivated varieties is used extensively for salads, etc.

**Celeste, Madame,** a French dancer, born in Paris, Aug. 6, 1814, early showed remarkable talent. She made her début in 1827 at New York, and during her residence in the United States married a Mr. Elliott. She retired from the stage in 1874, and died at Paris, Feb. 12, 1882.

**Celestial Empire, The,** a popular name for the Chinese Empire, taken from the Chinese words "Tien Chao" (Heavenly Dynasty). Hence the name "Celestials," applied to natives of China.

**Celestial Sphere,** the background of sky on which we see all celestial objects projected. It is supposed to be of indefinite radius with the observer at the center.

**Celestine V.,** (Pope Pietro di Monrone), a Benedictine monk, who founded the order of the Celestines, which was suppressed by Pope Pius VI., 1776–78. He was elected Pope in 1294, after an interregnum of six years. A few months after, he resigned his office and was succeeded by Boniface VIII., who confined him in the castle of Fumone, where he died. Celestine was canonized in the year 1313 by Clement V.

**Celibacy,** the state of being celibate or unmarried; specially applied to the voluntary life of abstinence from marriage followed by many religious devotees and by some orders of clergy, as those of the Roman Catholic Church.

**Cell,** a term of various applications: (1) the compartments of a honeycomb. (2) one of the small structures composing the substance of plants, generally indistinguishable by the naked eye, and each at least, for a time, being a whole complete in itself. (3) A term often applied to any small cavity but properly restricted to a microscopical anatomical element with a nucleus cell-wall and cell-contents when typically formed. (4) The space between the two ribs of a vault, or the space inclosed within the walls of an ancient temple. (5) A structure in a wrought-iron beam or girder; a tube consisting of four wrought-iron plates riveted to angle-iron at the corners. (6) In electricity, a single jar, containing a couple of plates, generally copper and zinc, united to their opposite or to each other usually by a wire.

**Cellini, Benvenuto,** Italian sculptor, born in Florence, 1500; died there 1571. His chief works are: the "Perseus" at Florence; the colossal "Mars" at Fontainebleau; and a "Christus" in the Escurial Palace.

**Cellular Tissue,** a kind of tissue made of a number of separate cells of minute bags adherent together. It is found filling interstices between the various organs in man and the vertebrated animals.

**Celluloid,** an ivory-like compound, which can be molded, turned, or otherwise manufactured for various purposes for which, before its introduction, ivory and bone were employed.

**Cellulose,** a substance of general occurrence, and constituting the basis of vegetable tissues. Corn pith cellulose is an American preparation used as a packing in warships to protect them from sinking when pierced by shot or shell. This packing is placed like a belt three feet in thickness, inside the steel hull along the water line.

**Celsius,** the name of a Swedish family, several members of which attained celebrity in science and literature. The best known is Anders Celsius, born in 1701, died in 1744. After being appointed Professor of Astronomy at the University of Upsal he traveled in Germany, England, France, and Italy, and in 1736 he took part in the expedition of Maupertuis and others for the purpose of measuring a degree of the meridian in Lapland. He is best known as the constructor of the Centigrade thermometer.

**Celt,** the longitudinal and grooved instrument of mixed metal often found in Scotland, also a stone instrument of a wedgelike form found in barrows and other repositories of Celtic antiquarian remains. Though the primary application of the word celt was to the metallic implement, yet the stone celt

is believed by archæologists and geologists to be the older of the two.

**Celtiberi,** a people of ancient Spain supposed to have arisen from a union of the aborigines, the Iberians, and their Celtic invaders. Various limits have been assigned to their country, which included probably all the N. of Spain as far S. as the sources of the Guadalquivir. After 72 B. C. they do not appear in history.

**Celts,** the earliest Aryan settlers in Europe according to common theory. They appear to have been driven westward by succeeding waves of Teutons, Slavonians, and others. Herodotus mentions them as mixing with the Iberians who dwelt round the river Ebro in Spain. At the beginning of the historic period they were the predominant race in Great Britain, Ireland, France, and elsewhere. The Romans called them generally Galli. They appear to have reached the zenith of their power in the 2d and 3d centuries B. C. Some tribes of them settled in a part of Asia Minor to which the name of Galatia was given. They finally went down before the power of Rome. At an early date the Celts divided into two great branches, speaking dialects widely differing from each other, but belonging to the same stock. One of these branches is the Gadhelic or Gaelic, represented by the Highlanders of Scotland, the Celtic, Irish, and the Manx; the other is the Cymric, represented by the Welsh, the inhabitants of Cornwall, and those of Brittany. The sun seems to have been the principal object of worship among the Celts, and groves of oak and the remarkable circles of stone commonly called "Druidical Circles," their temples of worship.

**Cements,** substances capable of uniting bodies closely. They are variously composed according to the nature of the surfaces to unite, and their exposure to heat or moisture. Building cement is a strong mortar consisting of hydraulic limes which contain silica, and set quickly.

**Cenci, Beatrice,** called the beautiful parricide, the daughter of Francesco Cenci, a noble Roman, who, after his second marriage, behaved toward the children of his first marriage in the most shocking manner, procured the assassination of two of his sons, on their return from Spain, and abused his youngest daughter Beatrice. She planned and executed the murder of her father and was beheaded in 1599. She is the alleged subject of a painting by Guido, and is the heroine of one of Shelley's most powerful plays. Recent researches have deprived the story of its romantic elements, and have shown Beatrice to be a very commonplace criminal. Her stepmother and brother, who were equally guilty with her, were also executed.

**Cenis,** a mountain belonging to the Graian Alps, between Savoy and Piedmont, 11,755 feet high. It is famous for the winding road constructed by Napoleon I., which leads over it from France to Italy, and for an immense railway tunnel, which, after nearly fourteen years' labor, was finished in 1871. The Mount Cenis Pass is 6,765 feet above the level of the sea, whereas the elevation of the entrance to the tunnel on the side of Savoy is only 3,801 feet, and that on the side of Piedmont 4,246 feet. The total length of the tunnel is nearly 8 miles. The total cost amounted to about $12,000,000.

**Cenotaph,** an empty monument, that is, one raised to a person buried elsewhere.

**Censer,** a vase or pan in which incense is burned, or a bottle with a perforated cap, used for sprinkling odors. Censers were much used in the Hebrew service, but their form is not accurately ascertained. Josephus tells us that King Solomon made 20,000 gold censers for the temple of Jerusalem to offer perfumes in, and 50,000 others to carry fire in. The censer used in the Roman Catholic Church at mass, vespers, and other offices, is suspended by chains, which are held in the hand, and is tossed in the air, so as to throw the smoke of the incense in all directions.

**Censor,** the title of two Roman magistrates originally appointed for the purpose of taking the census. But their powers were much increased when they had the inspection of public morals, and authority to remove citizens from their tribes, depriving them of all their privileges except liberty. The Censors had also the power of making contracts for public build-

ings, and the supply of victims for sacrifices. There is in some countries a censor whose duty it is to inspect and examine books, plays, etc., before they are published, to insure that they shall contain nothing to offend against public morality or decency. In Russia the office is one of unlimited authority over all publications. An official appointed in time of war, at military headquarters, to supervise and endorse all press dispatches.

In China there is a Board of Censors whose members are theoretically superior to the central administration, and have a right to present any remonstrance to the sovereign. It is understood that experience with the present empress dowager has made them cautious.

**Census,** a periodical enumeration of the people of any State or country, with such information on other subjects as may be desired. The United States census of 1920 was authorized in 1919 by the Act of Congress, which limited the inquiries to population, agriculture, manufactures, mines and mining, and directed that it should be taken as of April 15, and that all reports be completed within three years from July 1, 1919. This census had at its head an official who was Director of the Permanent Census Bureau, and was assisted by 330 district supervisors, 1,600 special agents, 70,000 enumerators, and 3,500 clerks for combining and tabulating the enumerators' returns. The total cost, including publications, was estimated at $16,000,000. The compilation and tabulation were done by means of cards, one for each of the approximately 90,000,000 persons enumerated, which were punched in spaces to show inquiry answers by machines resembling typewriters or adding machines, and run through automatic electrical tabulating machines to record the facts. The Bureau of the Census issued elaborate reports yearly on Manufactures.

**Cent,** or **Centime,** the name of a small coin in various countries, so called as being equal to a 100th part of some other coin. In the United States and in Canada the cent is the 100th part of a dollar. In France the centime is the 100th part of a franc. Similar coins are the centavo of Chili, and the centesimo of Italy, Peru, etc.

**Centaur,** a mythical creature, half man, half horse, said to have sprung from the union of Ixion and a Cloud; the most celebrated was Chiron. They inhabited Thessaly, and were also called Hippocentaurs. The myth probably arose from some herdsman on horseback, who, being seen by individuals unacquainted with the uses of the horse, was supposed to form, together with his steed, one integral body. It is also the name of a constellation in the Southern Hemisphere.

**Centennial Exhibition,** an international exposition held in Philadelphia from May 10 to Nov. 10, 1876, to celebrate the 100th anniversary of the Declaration of Independence. The various contributions of money amounted to $6,800,000. The total attendance was 9,910,966, of which 8,004,274 were paid. The largest attendance was on Pennsylvania Day (Sept. 28,), when 274,919 persons were on the grounds.

**Centennial State,** Colorado; it was admitted to the Union in 1876, the 100th year of American independence.

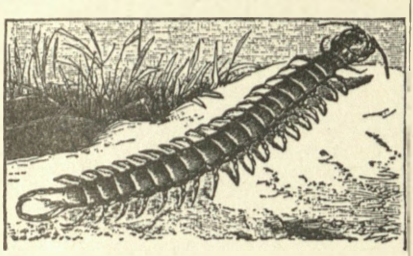
**Center-Board,** a contrivance used in yachts or shallow keelless vessels to counteract the tendency to drift to leeward, caused by the absence of a keel. It is lowered through a prepared slit, in the bottom of the craft.

**Center of Population,** the center of gravity of the population of a country, each individual being assumed to have the same weight. The center of population in the United States has clung to the parellel of 39° lat. and 86° long. for many years. In 1920 it was in Allen County, Indiana.

**Centigrade Thermometer,** a thermometer scaled to represent the interval between the freezing and the boiling point of water, divided into 100 equal parts, the freezing-point being taken as zero.

**Centipede,** a worm having a long slender, depressed body, protected by coriaceous plates, 21 pairs of legs, distinct eyes, 4 on each side, and antennæ with 17 joints. The name is, however, popularly extended to species of nearly allied genera. Centipedes run

nimbly, feed on insects, and pursue them into their lurking-places.



GIANT CENTIPEDE.

**Central America,** the narrow tortuous strip of land which unites the continents of North and South America, extending from about lat. 7° to 18° N. The limits assigned to it include the six republics of Panama, Guatemala, Honduras, San Salvador, Nicaragua, and Costa Rica, with British Honduras. It thus has Mexico on the N. W., Colombia or New Granada on the S. E., and the Pacific Ocean and Caribbean Sea on either side. Its entire length is about 800 miles, with a breadth varying from between 20 and 30 miles to 350 miles. The area was estimated (1922) 220,000 square miles; the pop. 6,000,000.

Guatemala is remarkable for containing, with exception of the island of Java, the greatest number of active volcanoes known to exist within similar limits. The highest in Central America, is Agua, which is said to attain an elevation of 15,000 feet. This volcano has obtained its name from its emitting torrents of water and stone instead of fire. The mountains of Central America do not generally attain an elevation equal to those of the two adjoining continents, with exception of the volcanoes. The coast lands are generally narrow, and in some places the mountains and high lands come close down to the water's edge. The rivers of this territory are small, and have short courses, the longest not exceeding from 200 to 300 miles, while many of them are not more than 50. The principal lake is that of Nicaragua, which is upward of 100 miles in length, and about 50 miles in breadth. The other considerable lakes are those of Managua or Leon, Golfo Dolce, Golfete, Peten, Atitlan, Amatitlan, Guija, and Cojutepeque.

The climate is exceedingly various, owing to the inequality of the surface. The low grounds on the coast of the Caribbean Sea are exposed to violent tropical heats, and are generally unhealthy; but on the table-lands any temperature, according to altitude, may be obtained all the year round, with a salubrious climate. The dry season lasts from about October to May; the rest of the year is called the wet season, although the rain falls during the night only, the days being fair and cloudless, and the air pure and refreshing. The vegetable productions are as various as the climate. Various creepers and parasitic plants, and among them beautiful orchids, adorn the forests. The zoology of Central America differs little from that of other parts of tropical America. Serpents are numerous, some of them dangerous. Alligators infest some of the streams and lakes, and often attack domestic animals. The rivers, lakes, and seas abound with fish. Of the geology little is known with accuracy. Gold, silver, iron, lead, and mercury are found; but none are worked to any great extent. Jasper and marble are worked in Honduras; and sulphur is collected near the volcano of Quezaltenango. There are also many salt springs; and salt is procured in large quantities on the shores of the Pacific.

The population consists of three classes — whites; mestizoes, or the offspring of whites and Indians; and pure-blooded Indians or aboriginal natives. The proportions of this population have been estimated at one-twelfth whites, four-twelfths mixed races, and seven-twelfths Indians. The Roman Catholic religion is professed by all. The chief occupation of the people is agriculture. The chief export is coffee; others include cocoa, fruits, hides, indigo, sugar.

The Spaniards in 1524 laid the foundations of the city of Guatemala. After the subjugation of the Quiches, the remaining tribes were subdued with comparative facility, and the dominion of the conquerors was perma-

nently established. The government of this country, as constituted by Spain, was subject to the Mexican; but the dependence was far from being close. It was denominated the kingdom of Guatemala, and governed by a captain-general. Its inhabitants remained true to Spain till 1821 when they declared their independence; and although for a time a large part of the country was joined to Mexico under the rule of Iturbide, yet on his downfall they recurred to their original purpose of forming a separate republic. A constituent congress was convoked, which on July 1, 1823, published a decree declaring the five States already mentioned a republic under the title of the United States of Central America. Civil dissensions were not long in making themselves felt, however, and in 1839 the union between the States was formally dissolved. Guatemala, Honduras, Nicaragua, and San Salvador again formed a union in 1842, but this lasted only till 1845. Since that time several atempts (one in 1898) have been made to unite the States, but without permanent success.

Central America contains antiquities of a very interesting nature, which indicate that the aboriginal inhabitants of the country had even attained a very respectable proficiency in the knowledge of the arts of life. Ruins of large cities exist in various places, with remains of temples, altars, and ornamental stones, statues of deities, and other works of sculpture.

**Central Falls,** a town in Providence county, R. I.; on the Blackstone river and the New York, New Haven & Hartford railroad; 5 miles N. of Providence; is in a farming section; has a large trade in dairy products; and manufactures cotton, woolen, and hair goods, leather, and machinery, having fine power from the river. Pop. (1920) 24,174.

**Central India,** the official term for a group of feudatory States in India. The total area is about 82,057 square miles; pop. 10,827,202.

**Centralization,** a term in a specific sense applied to a system of government where the tendency is to administer by the central government matters which had been previously, or might very well be, under the management of local authorities.

**Central Park,** the most noted park in New York City, and contains 840 acres. It was laid out under the direction and management of Hon. Andrew H. Green, who for thirteen years had absolute control of the work, and who is known as "The Father of New York." It contains among other objects of interest, the Mall, the Croton Reservoirs, Cleopatra's Needle, the Metropolitan Museum of Art, and several lakes. Over $35,000,000 has been expended on it.

**Central Powers,** a designation assumed by Germany and her allies in the world war.

**Central Provinces,** an extensive British territory in India. They became a separate administration in 1861, and are under the authority of a chief commissioner. Their total area is 130,997 square miles, of which 99,823 square miles are British territory, and 31,174 the territory of native protected states. Pop. (1921) 13,908,514, including 3,081,260 in native States. Berar, leased to the Government, is attached for administration.

**Central University,** a co-educational institution in Pella, Ia., organized in 1853, under the auspices of the Baptist Church.

**Central University,** an educational institution in Richmond, Ky., organized in 1873, under the auspices of the Presbyterian Church.

**Central Wesleyan College,** a co-educational institution in Warrenton, Mo., organized in 1864, under the auspices of the Methodist Episcopal Church.

**Centre College,** an educational institution in Danville, Ky., organized in 1819, under the auspices of the Presbyterian Church.

**Centumviri,** judges of ancient Rome, three from each tribe, who determined ordinary causes. The extent of their jurisdiction is uncertain.

**Centurion,** a Roman military officer commanding a company of infantry, consisting of 100 men.

**Century,** an aggregate number of 100 of things; a period of 100 years. This is the uniformly accepted sense of the word now. Modern chro-

nology among Christian nations centers at the birth of Christ, and the centuries are numbered according to their order either before or after that era. The word is also applied to a division of the Roman tribes for the election of magistrates, the passing of laws, etc., on which the voting was by centuries; to a sub-division in the Roman army.

**Century-plant,** a popular name of the American aloe.

**Cephalonia,** an island of Greece, W. of the Morea, at the entrance of the Gulf of Patras, about 31 miles in length, and from 5 to 12 in breadth; area, 348 square miles; pop. 80,543. Earthquakes are not infrequent. One of the most destructive was that of the year 1867.

**Cephalopoda,** a class of mollusks, the highest in organization of that division of the animal kingdom. To this class belong the Nautili, Squids, Cuttle-fish, etc. The Cephalopoda receive their name from having organs of prehension and and locomotion attached to the head, an arrangement toward which a gradual approach may be traced in the highest gasteropod mollusks.



A CEPHALOPOD.

**Cephas,** a surname given by Christ to Simon. In the Greek it is Petros ("a rock"), in Latin, Petrus, and in English Peter.

**Cepheus,** a king or Ethiopia and husband of Cassiopeia; his name was given to a constellation of stars in the N. hemisphere surrounded by Cassiopeia, Ursa Major, Draco, and Cygnus.

**Ceram,** an island in the Moluccas, W. of New Guinea; area, 6,621 square miles, pop., estimated at 67,000. It is about 200 miles long with an average width of 35 miles. Its interior is traversed by mountain ranges from 6,000 to 8,000 feet high. The vegetation is luxuriant. The inhabitants of the coast are of Malay origin, the interior being peopled by Alfoories. It is under the Dutch.

**Ceramic Art,** that department of plastic art which comprises all objects made of baked clay, and including all the varieties of earthenware and porcelain which can be regarded as works of art.

**Cerastes,** a genus of African vipers remarkable for their fatal venom, and for two little horns formed by the scales above the eyes. Hence they have received the name of horned vipers. The tail is very distinct from the body.

**Cerate,** the name of an external medicament, more or less liquid, having for its basis wax and oil. Simple cerate consists of 8 ounces of lard and 4 of white wax melted together and stirred till cold.

**Cerberus,** the three-headed dog which guards the entrance of the kingdom of Hades and Persephone. Orpheus, when he descended into the infernal regions in search of Eurydice, lulled him to sleep with his lyre; and Hercules dragged him from the gate of Hades, when he went after Alceste.

**Cercis,** a handsome Asiatic tree. It has received the name of the Judas-tree, from the tradition that it was upon a specimen of it, near Jerusalem, that the traitor Judas hanged himself.

**Cerdic,** a king of the West Saxons, who invaded England about the end of the 5th century, and established the kingdom of Wessex about 516. He died in 534.

**Cere,** the naked skin that covers the base of the bill in some birds, and which is supposed to exercise a tactile sense.

**Cereals,** a term derived from Ceres, the goddess of corn, and confined to wheat, barley, rye, oats, and other grasses, cultivated for the sake of their seed as food.

**Cerebration,** exertion or action of the brain, conscious or unconscious.

**Cerebro-spinal,** pertaining to the brain and spinal cord together, looked on as forming one nerve mass.

**Ceres,** an asteroid, the first found. It was discovered by Piazzi on Jan. 1, 1801. Having observed it at Palermo, in Sicily, he called it Ceres, after the old tutelary divinity of that island.

**Cereus,** the Torch-thistle. The Suwarrow or Saguaro of the Mexicans, is the largest and most striking of the genus. It rises to the height of 50 or 60 feet, and looks more like a candelabra than a tree of the normal type. The genus are generally useful as cardiac agents and anti-pyretics.

**Cerigo** (ancient Cythera), a Greek island in the Mediterranean, S. of the Morea, from which it is separated by a narrow strait; area about 100 square miles.

**Cerinthus,** a heretic who lived at the close of the apostolic age, but of whom we have nothing better than uncertain and confused accounts.

**Cerium** (named by the discoverers after Ceres), a metal found with two other metals, lanthanum and didymium, in cerite.

**Ceroxylon,** a genus of South American palms; the wax palm.

**Cerro Blanco,** the highest mountain in New Mexico; summit 14,269 feet.

**Cerro de Pasco,** the capital of the Peruvian department of Junin, stands at an elevation of 14,276 feet, 138 miles N. E. of Lima. Near it are some of the richest silver mines on the continent. The climate is cheerless and inclement. Pop. about 14,000.

**Cerro Gordo,** a mountain-pass in Mexico, through which passes the National road from Vera Cruz to Jalapa and Mexico. It is celebrated as the scene of a victory by General Scott with 9,000 United States troops over an army of 13,000 Mexicans under Santa Ana, April 17–18, 1847. This victory enabled Scott to take the town of Jalapa the following day.

**Cerro Gordo de Potosi,** a mountain in the Andes of Bolivia; S. W. of Potosi; 16,150 feet in height; remarkable for its deposits of silver.

**Cerro Largo,** a department in the N. E. of Uruguay, well watered, with large savannahs and forests. Area, 5,763 square miles; pop. 54,005, chiefly engaged in cattle-raising. Capital, Cerro Largo or Melo; pop. 5,000.

**Cerros,** or **Cedros Island,** an island belonging to Mexico, in the Pacific Ocean, off the W. coast of Lower California.

**Certaldo,** a town of Central Italy, 19 miles S. W. of Florence. It is noteworthy as the residence of Boccaccio, who was born and died here. His house is still standing, much as it was in the poet's time.

**Certiorari,** in law, a writ issuing out of a superior court to call up the records of an inferior court or remove a cause there depending, that it may be tried in the superior court.

**Cervantes Saavedra, Miguel de,** author of "Don Quixote," and one of the greatest writers of modern times; born in Alcala de Henares, Oct. 9, 1547. He died April 23, 1616 (on the same day as Shakespeare), in Madrid, where he had resided during the last years of his life. He was buried without any ceremony, and no tombstone marks the spot where he rests.

**Cervera y Topete, Pascual,** a Spanish naval officer; born in the province of Jerez, in 1833. Graduated at the Naval Academy of San Fernando; entered on active service in 1851; and was made first lieutenant in 1859; captain in 1868; and admiral subsequently. He was a prominent factor in the 10-years' war in Cuba, when he succeeded in blockading the ports; was sent to London, as a representative of Spain, to take part with other nations in a conference bearing on naval questions of international importance; and commanded the fleet sent against the American squadron operating in Cuban waters after the declaration of war in 1898. He took refuge in the inner harbor of Santiago de Cuba, and when, on July 3, he attempted to escape, under imperative orders from his superiors, his entire fleet was destroyed by the squadron under the official command of Rear-Admiral Sampson and the actual command (in the temporary absence of that officer) of Rear-Admiral Schley. Admiral Cervera and his surviving officers were sent to Annapolis, Md., as prisoners of war, and soon afterward were returned to Spain. He died April 3, 1909.

**Cervidæ,** a family of mammals. The males of all the species and also the female of the reindeer have ant-

lers, which are deciduous, this last character completely distinguishing them from the Oxen. The antlers also are solid. The species are widely distributed and well known. None are found in Africa S. of the Sahara or in Australia.

**Cervus,** the genus of animals to which the stag belongs, forming the type of the deer family.

**Cesnola, Luiga Palma di,** an American archæologist, born in Piedmont, Italy, June 29, 1832. He served in the Italian war with Austria and came to the United States in 1860, serving in the Civil War. He was United States Consul at Cyprus, where he made extensive archæological discoveries. Until his death, Nov. 21, 1904, he was director of the Metropolitan Museum of Art in New York city.

**Cespedes y Borges, Carlos Manuel de,** a noted Cuban patriot, born in Bayamo, April 18, 1819. Implicated in Prim's conspiracy while in Spain, he was banished from there and returned to Cuba. As leader of the revolt of 1868 he was chosen by the insurgents President of the newly proclaimed republic. He was killed in a skirmish with Spaniards, March 22, 1872.

**Cestoid Worms,** the Cestoda, or intestinal worms, consisting of tape worms and other creatures which resemble them in structure and habits. The number of different kinds is great. Their natural history is important in reference to the health of human beings and of the most valuable of domesticated animals.

**Cetacea,** aquatic mammals which depart in many important anatomical points from the other members of the class, their structure being so modified as to render them unfit for terrestrial life. The whales, the porpoise, narwhal, etc., represent the leading divisions of the group. The body is fish-like in form, the head passing gradually into the trunk, which tapers posteriorly and ends in a bil bate caudal fin which is placed horizontally, not as in the fishes, vertically. The posterior limbs are wanting, and the anterior are converted into broad paddles, within which are present representatives of all the bones usually found in the fore limb of mammals. The fish-like aspect is further increased by the presence of a dorsal fin, as in the dolphin and finner whale.

The arrangement of the respiratory and circulatory systems, which enable the Cetacea to remain for some time under water, are interesting. The nostrils open directly upward on the top of the head, and are closed by valvular folds of integument which are under the control of the animal. When the animal comes to the surface to breathe it expels the air violently, and the vapor it contains becomes condensed into a cloud. The blood-vessels, especially those of the thorax and spinal canal, break up into extensive plexuses or networks, in which a large amount of oxygenated blood is delayed, and thus the animal is enabled to remain under water.

**Cetewayo,** a Kaffir chief, son of Panda, King of the Zulus. The Natal government secured the recognition of Cetewayo as king in 1873. A dispute which had arisen regarding lands on the frontier was settled in favor of the Zulus; but on the refusal of Cetewayo to comply with the conditions war was declared against him by the British, and the king made prisoner in 1879. He died Feb. 8, 1884.

**Cettinje,** a city of Montenegro, Jugo-Slavia; situated in a lofty mountain valley, 19 miles E. of Cattaro, with which it is connected by a steep road. Turkish invaders sacked and burnt the town in 1683, 1714, and 1785, but it was each time rebuilt. Montenegro took part in the World War on the side of the Entente Allies. Late in 1915 it was overrun by the Germans and Austrians; on Dec. 6, the Germans captured Ipek; on Jan. 13, 1916, the Austrians captured Cettinje; and subsequently the government removed to Lyons, on invitation of the French Government. Pop. about 5,500.

**Ceuta,** a fortified port belonging to Spain, on the coast of Morocco, opposite Gibraltar. The mixed population number (Est.) 25,000. It has resisted several sieges by the Moors, and is still the most important of the four African Presidios. An attempt to strengthen the fortifications was abandoned (1899) upon representations from the British government to the

cabinet at Madrid. Many Cuban patriots were prisoners there before Spain gave up its hold on Cuba.

**Cevennes,** the chief mountain range in the S. of France. With its continuations and offsets, it forms the watershed between the river-systems of the Rhone and the Loire and Garonne.

**Ceylon,** (native Singhala, ancient Taprobane), an island belonging to Great Britain in the Indian Ocean, about 60 miles S. E. of the S. extremity of Hindustan, from which it is separated by the Gulf of Manaar and Palk's Strait. Length, about 270 miles N. to S.; average breadth, 100 miles; area, 25,332 square miles.

Where the jungle has been cleared away and the land drained and cultivated, the country is perfectly healthy; where low wooded tracts, and flat marshy lands abound, covered with a rank, luxuriant vegetation, the climate is eminently insalubrious.

Most of the animals found on the opposite continent are native to this island, excepting the royal tiger, which does not exist here. Elephants are numerous and are esteemed for their superior strength and docility. Bears, buffaloes, leopards, jackals, monkeys, and wild hogs are numerous. Crocodiles, serpents, and reptiles of all sorts abound. Of the snake tribe, consisting of about 26 different species, six only are venomous. Among the insects are the leaf and stick insects, the ant-lion, the white ant, etc.

In the luxuriance of its vegetable productions, Ceylon rivals the islands of the Indian Archipelago, and in some respects bears a strong resemblance to them; its most valuable products are tea, rice, coffee, cinnamon, and the cocoanut. Tea is being widely cultivated. Tobacco is raised principally in the N. district, and is of excellent quality. Indigo grows wild, but is not sought after.

Ceylon is one of the British crown colonies, its government being conducted by a governor and two councils, executive and legislative, of both of which the governor is president. The first is composed of six members, the other of 17 members. The powers of the councils are limited, being wholly subservient to the governor, who can carry into effect any law without their concurrence. All laws must be approved by the Secretary of State for the Colonies before they can take effect. Any individual properly qualified may be appointed to the most responsible situation, without reference to service, nation or religion, and native Singhalese have occupied some of the highest posts. Of the population (1921) 4,497,509, 2,770,000 were said to be Buddhists, and about 982,000 were of the Hindu religion. On the W. and S. W. coast numbers of the Singhalese profess the Roman Catholic religion. There are a number of Episcopal clergy in the island, subordinate to the Bishop of Colombo; various other Protestant bodies have places of worship, but the Protestants are less than half the number of the Roman Catholics.

The Singhalese have a colloquial language peculiar to themselves, but their classic and sacred writings are either in Pali or Sanskrit. The Malabars use the Tamil. English is becoming more and more common.

The principal towns of the island are Colombo, Trincomalee, Kandy, Galle, Gaffna, and Kornegalle.

**Chacornac, Jean,** a French astronomer, born in Lyons, June 21, 1823. He is principally known for his discoveries of asteroids, six in number, and most of his work was done at the Paris Observatory under Leverrier. He died in Paris, Sept. 26, 1873.

**Chadbourne, Paul Ansel,** an American educator and writer, born in North Berwick, Me., Oct. 21, 1823. He was president of the Massachusetts Agricultural College at Amherst; of the University of Wisconsin; of Williams College. He died in New York, Feb. 23, 1883.

**Chaddock College,** a co-educational institution in Quincy, Ill.; organized in 1857, under the auspices of the Methodist Episcopal Church.

**Chadwick, French Ensor,** an American naval officer, born in Morgantown, W. Va., Feb. 29, 1844. During the war with Spain he commanded the armored cruiser "New York;" promoted to rear-admiral in 1903; retired in 1906. Died, 1919.

**Chadwick, John White,** an American writer and Unitarian clergyman, born in Marblehead, Mass., Oct.

19, 1840. He died in Brooklyn, New York, Dec. 11, 1904.

**Chæronea,** a city of Bœotia, in ancient Greece, near the Cephissus, on the borders of Phocis. Philip II., King of Macedon, defeated the united Bœotian and Athenian forces near this place, B. C. 338; and here, also, Sylla defeated the generals of Mithridates VI. B. C. 86. Plutarch was born here, A. D. 46.

**Chafer,** a term loosely applied to certain insects of the beetle order, especially such as themselves or their larvæ are injurious to plants.

**Chaffee, Adna Romanza,** an American military officer, born in Orwell, O., April 14, 1842. He received a public school education; entered the regular army as a private, July 22, 1861; became a captain, Oct. 12, 1867; and colonel of the 8th U. S. Cavalry, May 8, 1899. On May 4, 1898, he was commissioned Brigadier-General of volunteers for the war with Spain; on July 8, following, was promoted to Major-General; and on April 13, 1899, was honorably discharged under this commission. On the last mentioned date he was re-appointed a Brigadier-General of volunteers, and on July 19, 1900, the President, having selected him to command the American military forces in China, commissioned him a Major-General of volunteers. He reached Taku, China, on July 28, and led the American contingent of the allied force which entered Peking on Aug. 15, and rescued the foreign legationers. General Chaffee made a brilliant record in the Apache Indian campaigns; commanded the troops which captured El Caney, in Cuba; and afterward was chief-of-staff to both Generals Brooke and Wood, when governor-general of Cuba. In 1901-2 he commanded the division of the Philippines; in 1904-6 was Chief of Staff, U. S. A. and lieutenant-general; in the latter year was retired at his own request after over 40 years' service. He died Nov. 1, 1914.

**Chagos Islands,** a group of islands in the Indian Ocean belonging to Great Britain; a S. extension of the Maldive Islands.

**Chagres,** a town of the United States of Colombia, on the N. coast of the Isthmus of Panama, at the mouth of the Chagres river. The river of the same name rises about 10 miles N. E. of Panama, makes an immense bend round to the N. E., and enters the Caribbean Sea. Though toward its mouth it varies in depth from 16 to 30 feet, it is yet, by reason at once of its rapidity and its falls, but little available for navigation. The route of the projected Panama canal is by the valley of the Chagres for part of its course, and the canal would cross the river repeatedly. The "Chagres fever" is named after the river.

**Chaille-Long, Charles,** an American explorer, born of French parentage, in Baltimore, Md., 1843. After serving in the Confederate army he went to Egypt, where he was appointed lieutenant-colonel by the Khedive (1870). Gordon made him chief-of-staff and sent him on a mission to King Mtesa of Uganda.

**Chain,** in surveying, is a measure consisting of 100 links, each 7.92 inches in length, and having a total length of 4 rods, or 66 feet.

**Chain Armor,** coats and other pieces of mail, formed of hammered iron links, constituting a flexible garment which fitted to the person.

**Chains,** series of links interlocked with the adjacent ones, in such a manner as to form continuous and flexible lines.

**Chain Shot,** two balls connected either by a bar or chain, formerly used for cutting and destroying the rigging of an enemy's ship.

**Chair of St. Peter,** at Rome, a wooden chair overlaid with ivory work and gold.

**Chaise,** a two-wheeled carriage for two persons, with a top, and usually drawn by one horse.

**Chalcedon,** a Greek city of ancient Bithynia, opposite Byzantium (Constantinople), at the entrance of the Black Sea, about 2 miles S. of the modern Scutari. It was finally destroyed by the Turks, by whom it was taken, about 1075.

**Chalcedony,** a cryptocrystalline variety of quartz, having the luster nearly of wax, and either transparent or translucent. Color, white, grayish, pale brown to dark brown or black; tendon-color common; sometimes deli-

cate blue. Also of other shades, and then having other names.

**Chalcis,** a Greek town, anciently the chief town of Eubœa, separated by the narrow strait of Euripus from the Bœotian coast, on the mainland of Greece, with which it was connected by a bridge. Chalcis early became one of the greatest of the Ionic cities, carrying on an extensive commerce. It was subsequently a place of importance under the Romans.

**Chaldæa,** in ancient geography the regions of Babylonia, or more generally Babylonia. The early history of Chaldæa is obscure. The Chaldæans were conquered by the Assyrians, with Babylon, and waged frequent wars with the latter power. When the Assyrian power began to wane, the Chaldæans, being a more warlike and powerful people than the Babylonians, became supreme; Chaldæa and Babylonia, by their conquests under Nebuchadnezzar, became one kingdom, and the names Chaldæa and Babylonia became synonymous terms.

**Chaldee Language,** a name often given to the Aramean language, one of the principal varieties of the ancient Semitic. Chaldee literature is usually arranged in two divisions: the Biblical Chaldee, or those portions of the Old Testament which are written in Chaldee, namely, Daniel from ii: 4 to vii: 28; Ezra iv: 8 to vi: 18; and vii: 12–26; and Jeremiah x: 11; and the Chaldee of the Targums and other later Jewish writings.

**Chalet,** the French-Swiss name for the wooden hut of the Swiss herdsmen on the mountains; but also extended to Swiss dwelling-houses generally, and to picturesque villas built in imitation of them.

**Chaleur Bay,** or **Bay of Chaleurs,** an inlet of the Gulf of St. Lawrence, between Quebec and New Brunswick.

**Chalice,** a term generally applied to a communion cup for the wine in the Eucharist, often of artistic and highly ornamental character.

**Chalk,** a well-known earthy limestone, of an opaque white color, soft, and admitting no polish. It is an impure carbonate of lime, and is used as an absorbent and anti-acid, and for making marks for various purposes.

**Challenge,** to jurors, is an objection either to the whole panel or array, or to the jurors individually, and it is either peremptory, or for cause assigned.

**Challenger Expedition,** a circumnavigating scientific exploration of the open sea sent out by the British government in 1872–1876. In 1872 the "Challenger," a corvette of 2,306 tons, was completely fitted out and furnished with every scientific appliance for examining the sea from surface to bottom. The ship was given in charge to a naval surveying staff, under Captain Nares, and to a scientific staff, with Professor Wyville Thomson at their head, for the purpose of sounding the depths, mapping the basins, and determining the physical and biological conditions of the Atlantic, the Southern and the Pacific Oceans. Between the Admiralty Isles and Japan the "Challenger" made her deepest sounding, on March 23, 1875, 4,575 fathoms, then the deepest sounding on record except two.

**Chalons-sur-Marne,** a town of N. E. France, 107 miles E. of Paris and on the main railway line to Nancy; normal pop. about 25,000. The principal industry is brewing. Chalons is a center of much historic interest. The plains nearby were the scene of the defeat of Atilla, the Hun, in the 5th century. Marshal MacMahon formed the great army here which surrendered at Sedan in 1870. The town was conspicuous in the operations in the World War, especially in 1915-16. The entire country between Chalons-sur-Marne and Verdun is full of interest. The town of Valmy, where the French defeated the Allies in 1792, is 33 miles distant, and its Ridge was the scene of desperate fighting in the great war. Beyond Sainte Menehould is the famous forest of Argonne. Verdun is 174 miles from Paris. See APPENDIX: *World War.*

**Chamber,** a word used in many countries to designate a branch of government whose members assemble in a common apartment, or applied to bodies of various kinds meeting for various purposes. The imperial chamber of the old German Empire was a

court established at Wetzlar, near the Rhine, by Maximilian I. in 1495, to adjust the disputes between the different independent members of the German Empire.

**Chamberlain,** an officer charged with the direction and management of the private apartments of a monarch or nobleman.

**Chamberlain, Joseph,** an English statesman, born in London in July, 1836. In 1868 he was appointed a member of the Birmingham town-council, was mayor of Birmingham from 1873 to 1876, and chairman of the Birmingham school-board from 1874 to 1876. After unsuccessfully contesting Sheffield against Mr. Roebuck in 1874, he was returned for Birmingham without opposition in June, 1876. He soon made his mark in Parliament, and on the return of the Liberals to power in 1880 he was appointed President of the Board of Trade, with a seat in the cabinet. Meanwhile his influence was increasing rapidly outside the House; he came to be regarded as the leader of the extreme Radical party. During the last hours of Mr. Gladstone's government he was understood to be opposed to the renewal of the Irish Crimes Act; and during the general election of 1886 he was most severe in his strictures on the moderate Liberals, and produced an "unauthorized" programme which included the readjustment of taxation, free schools, and the creation of allotments by compulsory purchase. He was returned by the western division of Birmingham. On Feb. 1, 1886, he beame president of the Local Government Board, but resigned on March 26, because of his strong objections to Mr. Gladstone's Home Rule measures for Ireland. He became leader of the Liberal-Unionists when the Duke of Devonshire went to the Upper House. Lord Salisbury sent him to Washington as commissioner on the Canadian fishery dispute, and in 1895 he was made Colonial minister in the Unionist Cabinet. As such he had to face the troubles in South Africa, and to cherish closer fellow-feeling with the Colonies. He carried the Australian Federation measure in Parliament (1900), and later had to face opposition from within the Liberal party. In 1888 he was married to Mary, daughter of William C. Endicott, Secretary of War in President Cleveland's first administration. After the Boer war he visited South Africa and made himself personally acquainted with the situation there. His strong advocacy of "fair trade," or a modified protective tariff caused great disturbance in the ministry and its supporters, and in September, 1903, Mr. Chamberlain resigned from the Cabinet. He died July 2, 1914.

**Chamberlain, (Joseph) Austen,** an English statesman, son of the above. Born, 1863. Educated at Rugby and Trinity College, Cambridge. From 1892 to 1914 represented Worcestershire in Parliament. Since 1914, W. Birmingham. He became Civil head of the admiralty in 1895; financial secretary of the Treasury in 1900; postmaster-general in 1902 and Chancellor of the Exchequer in 1903. Again became Chancellor of the Exchequer in 1919. In the Baldwin ministry in 1924 Chamberlain became secretary of state for foreign affairs.

**Chambers, Charles Julius,** an American journalist, born in Bellefontaine, O., Nov. 21, 1850. In 1870 he traveled through the West Indies, Europe, the United States, and Canada, as special correspondent of the "New York Herald." In 1876 he published an account of his few weeks of experience in an insane institution, entitled, "A Mad World," which excited great interest.

**Chambers, Robert,** a Scotch prose-writer and publisher, born in Peebles, July 10, 1802. He and his brother began in poverty as small booksellers; issued penny leaflets of useful information for the people which became very popular, and at last took regular periodical form in "Chambers' Journal," and the great publishing-house which bears the name of both developed gradually. The "Chambers' Encyclopædia" was the outgrowth of the "Journal." He died in St. Andrews, March 17, 1871.

**Chambers, William,** a Scotch prose-writer and editor, brother and partner of Robert, born in Peebles, April 16, 1800. He died in Edinburgh, May 20, 1883.

**Chambersburg,** a borough and county-seat of Franklin county, Pa.

on the Conecocheague and Falling Creeks and the Cumberland Valley and Western and the Philadelphia and Reading railroads, 52 miles W. S. W. of Harrisburg. In Early's raid in the Civil War General McCausland entered Chambersburg with Confederate cavalry, July 30, 1864, and demanded a tribute of $200,000 gold; this not being paid the place was set on fire, causing a loss of $1,000,000. Pop. (1920) 13,171.

**Chambers of Commerce,** bodies of merchants and traders associated for the purpose of promoting the interests of their own members, of the city to which the society belongs, and of the community. Of the means by which these objects are sought to be accomplished the following may be mentioned as the most prominent: (1) by representing and urging on the Legislature the views of their members in mercantile affairs; (2) by aiding in the preparation of legislative measures having reference to trade; (3) by collecting statistics bearing upon the staple trade of the city; (4) in some places by acting as a sort of court of arbitration in mercantile questions; (5) by attaining by combination advantages in trade which might be beyond the reach of individual enterprise.

The first institution of the kind in the United States, the New York Chamber of Commerce, was organized in 1768 and incorporated by royal charter from King George III. in 1770. There are similar bodies in every city and town of consequence in the United States.

**Chambly, Fort,** a fort at the outlet of Lake Champlain at the time of the Revolutionary War. It was captured by the Colonists in 1775, and the colors of the 7th Regiment of British regulars was sent to the Continental Congress as trophies of the victory.

**Chambord, Henri Charles Ferdinand Marie Dieudonne,** Comte de, Duke of Bordeaux, the last representative of the elder branch of the French Bourbon dynasty, called by his partisans Henry V. of France; born in Paris, Sept. 29, 1820, seven months after the assassination of his father. Charles X., after the revolutionary outbreak of 1830, abdicated in his favor, but the young count was compelled to leave the country. He lived successively in Scotland, Austria, Italy, and England, keeping a species of court, and occasionally issuing manifestos. In 1846 he married the Princess Maria-Theresa, eldest daughter of the Duke of Modena, and in 1851 inherited the domain of Frohsdorf, near Vienna, where he subsequently resided. He died in Austria, Aug. 24, 1883.

**Chambre Ardente,** the name given in France to a court of law, instituted by Francis I. It was hung with black and lighted with torches, for the purpose of trying and burning heretics; and also to the extraordinary commissions established for the examination of poisoners, and under the regent duke of Orleans for the punishment of public officers charged with offenses against the revenues, as also of those who were guilty of fraud in the matter of Law's bank.

**Chambre des Comptes,** a great court established in France, prior to the Revolution, for the registration of edicts, ordinances, etc.

**Chambrun, Marquis Pierre de,** a French politician; born in Paris, June 11, 1865, grandson of Marquis de Lafayette of Revolutionary fame; studied law; since 1898 represented the Department of Lozere in the Chamber of Deputies; gave special attention to foreign affairs, notably to the cultivation of an interest and program for a close intercourse between the parliaments and congresses of various countries. In 1917 he was a member of the French War Mission to the United States under the famous Marshal Joffre.

**Chameleon,** a genus of reptiles belonging to the Saurian or lizard-like order, a native of parts of Asia and Africa. The very remarkable power which these animals possess of changing their color, at a very early period called the attention of observers to their habits. Its skin is composed of a sort of small, scaly grains, and under ordinary circumstances is of a greenish gray color. The eyes are capable of moving independently of each other, taking different directions at the same moment. Several species of chameleon are known, and are natives of Africa, Madagascar, Southern

Asia, and the Molucca Islands. They pass their lives altogether upon trees, feeding upon small insects, for which their construction shows them to be perfectly adapted.

**Chameleon,** a Southern constellation containing nine stars, lies within the Antarctic Polar Circle.

**Chamois,** a well-known species of the antelope found only in high, mountainous regions, where they feed in small flocks or families, on the highest



CHAMOIS.

cliffs affording vegetation. The chamois are exceedingly shy, and have very acute senses, so that it is only by great patience and skill that the hunter can come sufficiently near to shoot them.

**Chamois Leather,** a leather made from the skin of the Chamois, but the skins of sheep, goats, deer, calves, and the split hides of other animals, are used for making this kind of leather.

**Chamomile** or **Camomile,** a well-known plant. It is perennial, and has slender, trailing, hairy, and branched stems. The flower is white, with a yellow center. Both leaves and flowers are bitter and aromatic. The fragrance is due to the presence of an essential oil, called oil of chamomile, of a light blue color when first extracted. It is cultivated in gardens in the United States, and also found wild

**Chamouni,** or **Chamonix,** a celebrated valley in France, department Haute-Savoie, in the Pennine Alps, over 3,000 feet above sea-level. It is about 12 miles long, by 1 to 6 miles broad, its E. side formed by Mount Blanc and other lofty mountains of the same range, and it is traversed by the Arve. The village of Chamouni is much frequented by tourists.

**Champaign,** a city in Champaign county, Ill.; on the Illinois Central and other railroads; 33 miles W. of Danville; has manufactures of windmills, furnaces, boilers, brick and tile, piano, and iron and steel tools; and is the seat of the University of Illinois. Pop. (1920) 15,873.

**Champ de Mars,** a large, rectangular public place in Paris, on the left bank of the Seine, about 3,300 feet long and 1,600 feet wide. At the outbreak of the French Revolution the square was constructed by the united efforts of all classes of Paris, and on July 14, 1790, the first anniversary of the taking of the Bastille, was held a grand pageant and festival at which universal pledges of "Liberty, Equality, and Fraternity" were exchanged. This spot was the scene of a bloody massacre July 17, 1791. It is now used chiefly as a parade-ground. In its center is the Eiffel Tower.

**Champerty,** the purchase of an interest in a thing in dispute, with the object of maintaining and taking part in the litigation, or assisting another to carry on a suit under an agreement to receive part of the sum or thing to be recovered.

**Champion,** one who combats or fights; specifically, in the Middle Ages, a person who took up the cause and fought in the place of another. Single combat was one of the ways frequently adopted to decide the right of a cause; and women, children, or aged persons were allowed to appear by a representative. At one time the champions were looked upon as disreputable, being ready, for hire, to take up any quarrel. At a later period, however, during the ages of chivalry, the champion was a knight, who entered the lists on behalf of an injured lady, a child, or one incapable of self-defense. The word is also applied to one who earns, or claims, the preëminence in feats of physical prowess, or skill

**Champion Hills,** a place in Hinds county, Miss., near Vicksburg, where, on May 16, 1863, the Union army defeated the Confederates.

**Champlain, Lake,** a picturesque body of water between the Green and Adirondack mountains, on the border of the States of Vermont and New York; length about 125 miles, maximum depth 280 feet. The waters find an outlet at the N. end by the Richelieu or Sorel river, which empties into the St. Lawrence. Since the construction of the canal, which connects it with the Hudson river, the lake has become an important medium of commerce between Canada and the United States. In July, 1909, the 300th anniversary of the discovery of the lake was celebrated by the United States, England, France, Canada, New York and Vermont.

**Champlain, Samuel de,** a French navigator, born at Brouage, Saintonge, about 1570. In 1599 he sailed to the West Indies, Mexico, and Panama. On his return (1601) he prepared a record of this cruise, with charts, etc. In March, 1603, he sailed for North America, and explored, by boat, the St. Lawrence river up to the Falls of St. Louis, and down to Gaspe. In May, 1604, he sailed with De Monts along the shores of Nova Scotia, wintered on the island of St. Croix, and founded a colony at Port Royal. From 1604 to 1606 he made careful surveys and charts of the coast as far as Cape Cod. He revisited France in 1607, but sailed again in 1608, and founded Quebec. In 1609 he accompanied an Algonquin and Huron expedition against the Iroquois, and discovered Lake Champlain. From September, 1609, to March, 1610, he was engaged in bringing over French mechanics for his colony. He became lieutenant-governor of New France (Oct. 8, 1612); fortified Quebec (1620); but was compelled (1629) to surrender to an English fleet, and was taken to England. Released in 1632, he sailed again for New France. He died in Quebec, Dec. 25, 1635.

**Champlin, John Denison,** an American author, born in Stonington, Conn., Jan. 29, 1834. He wrote many useful and instructive books for the young. He died Jan. 8, 1915.

**Champney, Elizabeth (Williams),** an American novelist, born in Springfield, O., in 1850. Many of her books are illustrated by her husband, J. W. Champney.

**Champney, James Wells,** an American artist, born in Boston, Mass., July 16, 1843. He studied in Europe under Edouard Frere, and in 1882 became a member of the National Academy. He died in New York in 1903.

**Champs-Elysées,** (Fr. "Elysian Fields"), a place of public resort in Paris, which consists of an avenue and the gardens surrounding it.

**Chanca, Dr.** (believed to have been **Diego Alvarez Chanca),** a Spanish physician, born in Seville, who became a companion of Columbus on his second voyage in 1493.

**Chancel,** the end of a church, in which the altar is placed. It was formerly divided from the body of the church by a screen and is raised above the level.

**Chancellor,** in ancient times a petty officer stationed at the fence of bars or lattice-work in a law-court, to introduce such functionaries as were entitled to pass inside. The Lord Chancellor of England was originally the king's chief secretary, to whom petitions were referred. He is now the highest judicial functionary in the kingdom. Several of the United States have chancellors, high judicial officers who preside over courts of chancery.

The Chancellor of the German Empire is an officer, the extent of whose power and influence has never been exactly defined. In modern Germany since the unification of the German Empire the office has been made illustrious by its association with the name of Bismarck, the first to hold that position under the new regime. In general terms it may be stated that the German Chancellor is an executive of very great powers, being at once the adviser and prime minister of the Emperor.

**Chancellorsville, Battle of,** one of the great battles of the American Civil War, fought at Chancellorsville, Va., May 2 and 3, 1863. Gen. Joseph Hooker commanded the Federal force, and Gen. Robert E. Lee the Confederate force. Although Hook-

er's army was superior in numbers, being about 130,000 against 60,000 of the Confederates, the advantage at the end of the battle lay with the latter. During a flank movement the 11th corps of the Federal army, under Gen. O. O. Howard, was surprised and thrown into a panic near nightfall of the first day. The flank movement extended so far that the bullets of the Confederates were turned upon their own troops, and by their fire "Stonewall" Jackson was mortally wounded. The Federal loss was 18,000, the Confederate loss 13,000.

**Chancery,** in law, a court having special defined power. In the United States it is a court having equity jurisdiction. American courts of equity are, in some instances, distinct from those of law; in others, the same tribunals exercise the jurisdiction both of courts of law and equity, though their forms of proceeding are different in their two capacities.

**Chandler, Seth C.,** an American astronomer, born in Boston, Mass., Sept. 16, 1845; well known for his investigations and observations of the phenomena of variable stars, the computation of comet orbits, and, in connection with J. Ritchie, Jr., of Boston, for devising a system of code-telegrams for announcing astronomical discoveries. He died Dec. 31, 1913.

**Chandler, William Eaton,** an American politician, born in Concord, N. H., Dec. 28, 1835. He was graduated at Harvard Law School in 1855, entered the New Hampshire Legislature in 1862, became Judge Advocate General of the Navy Department in 1865, and Secretary of the Navy in 1882, serving three years. In 1887–1901 he was a United States Senator from New Hampshire. Died, 1917.

**Chang-Chow-Foo,** or **Chang-Chau,** a city of China, about 36 miles S. W. of Amoy, which is its port. It lies in a valley in the province of Fu-Chien, and is surrounded by hills and intersected by a river. It is the center of the Fu-Chien silk industry.

**Changeling,** a child left or taken in the place of another.

**Chang-Sha,** a city of China, capital of the Province of Hu-Nan, on the Hang-Kiang, a tributary of the Yang-tse-Kiang.

**Chanler, William Astor,** an American explorer, born in Newport, R. I., June 11, 1867. He studied at Harvard, but left the university to make explorations in Africa. He was elected to the New York Legislature, and to Congress. He served in the war with Spain.

**Channel Islands,** a group of islands in the English Channel, off the W. coast of department La Manche, in France. They belong to Great Britain, and consist of Jersey, Guernsey, Alderney, and Sark, with some dependent islets. They are almost exempt from taxation, and their inhabitants enjoy besides all the privileges of British subjects. Area 112 square miles, pop., 96,900.

**Channing, William Ellery,** an American preacher and writer; born in Newport, R. I., April 7, 1780; studied at Harvard College. His early views are said to have been evangelical, but he soon became a decided Unitarian, and by his zeal was termed the "Apostle of Unitarianism." His first appointment as a preacher was in 1803, when he obtained the charge of a congregation in Federal street, Boston. He died in Burlington, Vt., Oct. 2, 1842.

**Channing, William Ellery,** an American poet; nephew of William E. Channing, the elder; born in Boston, Mass., June 10, 1818; died in 1901.

**Channing, William Henry,** an American Unitarian clergyman and biographer; nephew of W. E. Channing, the elder; born in Boston, May 25, 1810. Settling in England, he succeeded James Martineau as pastor at Liverpool. His daughter married Sir Edwin Arnold. He died in London, Dec. 23, 1884.

**Chantibun,** or **Chantabon,** an important commercial port of Siam, near the mouth of the Chantibun river, in the Gulf of Siam, occupied by the French as security for the fulfillment of the treaty of 1893. Pop., 30,000.

**Chantry,** a church or chapel endowed for the maintenance of one or more priests, for the purpose of singing daily masses for the souls of the endowers, and such others as they may appoint. Also the endowment for the performance of masses for the soul of the donor, or others.

**Chanzy, Antoine Eugene Alfred,** a French General, born in Nouart (Ardennes), March 18, 1823; entered the artillery as a private, received a commission in the Zouaves. He was elected to the National Assembly, and narrowly escaped being shot by the Communists in 1871. In 1873–1879 he was Governor-General of Algeria. Chosen a life Senator in 1875, he was put forward for the presidency in 1879. He was ambassador at St. Petersburg in 1879–1881, and afterward commanded the 6th Army Corps at Chalons, where he died suddenly, Jan. 4, 1883.

**Chao-Chau,** a city of China, on the Han-Kiang, in the Province of Kwang-tung, 195 miles N. E. of Hong-Kong.

**Chapala,** a lake in Mexico, on the high plateau of Jalisco, surrounded by steep, bare mountains.

**Chapel,** a place of worship, formerly distinguished from a church by the worship to be performed; churches being for general use, and chapels for private use. In Roman Catholic churches, portions of the main building, dedicated to particular saints, in honor of whom a service is there performed, are called chapels. The word is also applied to an association of union workmen in a printing-office for the purpose of promoting and enforcing order among themselves.

**Chapelle, Placide Louis,** an American clergyman, born in Mende, France, Aug. 28, 1842. He came to the United States in 1859, and was ordained a Roman Catholic priest. For five years he was a missionary, and from 1870 to 1891 held pastorates in Baltimore and Washington. He was made coadjutor archbishop of Santa Fe in 1891, archbishop in 1894, and archbishop of New Orleans in 1897; in 1898 he became Apostolic Delegate to Cuba, Porto Rico, and the Philippines. He died Aug. 9, 1905.

**Chapin, Edwin Hubbell,** American Universalist divine (1814-80), was the author of valuable moral and ethical works for young people.

**Chapin, John R.,** an American illustrator, born in Providence, R. I., in 1823. He received a common school education and studied law, but took up art. He was a pioneer in periodical illustration in the United States. In 1863 he made the designs for the new series of bills for the National currency. He died Nov. 12, 1901.

**Chaplain,** literally a person who is appointed to a chapel, as a clergyman not having a parish or similar charge. Chaplains in the United States army rank as captains of infantry; in the navy they have the rank of lieutenant, commander and captain, according to length of service.

**Cha-Poo,** or **Cha-Pu,** a seaport town of China, in the Province of Cheh-Chiang (or Che-Kiang), on the N. side of Hang-Chau Bay, 35 miles from Ning-Po.

**Chapter,** one of the chief divisions of a book. As the rules and statutes of ecclesiastical establishments were arranged in chapters, so also the assembly of the members of a religious order, and of canons, was called a chapter.

**Chapter-House,** the building attached to a cathedral or religious house in which the chapter meets for the transaction of business.

**Chapultepec,** a rocky elevation about 3 miles S. W. of the City of Mexico. During the war with the United States, Gen. Pillow stormed the castle on this hill, Sept. 13, 1847. The Emperor Maximilian made Chapultepec his principal palace, and it is now occupied by the President, portions used by a school and observatory being still reserved for them.

**Charade,** a species of enigma, or riddle, the subject of which is a name or word that is proposed for solution from an enigmatical description of its several syllables taken separately as so many individual words, and then from a similar description of the whole name or word.

**Charcot, Jean Martin,** a French physician, born in Paris, Nov. 29, 1825. His specialty was nervous and mental diseases, and he performed many curious and successful experiments in hypnotism and mental suggestion. He died Aug. 16, 1893. His son, JEAN MARTIN, became an eminent scientist; led an expedition to discover the South Pole in 1908; and while he failed he reached lat. 70° S., and mapped 120 miles of hitherto unknown coast.

**Chares,** a Rhodian sculptor, born in Lindus, Rhodes; lived about 290–280 B. C. He was a pupil of Lysippus and the sculptor of the Colossus of Rhodes, one of the "seven wonders of the world."

**Charge d'affaires,** a representative of a country at a less important foreign court, inferior to an ambassador, or a minister, to whom is intrusted all matters of diplomacy.

**Charge of the Light Brigade, The,** or "Death charge of the 600 at Balaclava," Oct. 25, 1854, a remarkable military movement made by the 13th Light Dragoons, the 17th Lancers, the 11th Hussars, commanded by Lord Cardigan, the 8th Hussars, and the 4th Light Dragoons. The Russians were advancing in great strength to cut off the Turkish force from the British. Lord Raglan sent an order to Lord Lucan to advance, and Lord Lucan, not understanding what was intended, applied to Captain Nolan, who brought the message, and Nolan replied: "There, my lord, is your enemy." Lucan then gave orders to Lord Cardigan to attack, and the 600 men rode forward into the jaws of death. In 20 minutes 12 officers were killed and 11 wounded; 147 men were killed and 110 wounded, and 325 horses were slain.

**Charing-Cross,** the titular center of London, so named from a cross which stood until 1647 at the village of Charing in memory of Eleanor, wife of Edward I. It is now a triangular piece of roadway at Trafalgar Square.

**Chariot,** in ancient times a kind of carriage used either for pleasure or in war.

**Charivari,** an imitative word, having its origin in slang, describing a mock serenade of discordant music with such accompaniments as tin kettles, shouting, whistling, groaning, hissing, and screaming, and the like.

**Charlemagne,** Charles the Great, King of the Franks, and subsequently Emperor of the West, was born in 742, probably at Aix-la-Chapelle. His father was Pepin the Short, King of the Franks. On the decease of his father, in 768, he was crowned king, and divided the kingdom of the Franks with his younger brother Carloman, at whose death in 771 Charlemagne made himself master of the whole empire. He attracted by his liberality the most distinguished scholars to his court at Aix-la-Chapelle where he died and was buried in 814.

**Charleroi,** a fortified and important manufacturing town of Belgium, in the province of Hainault, on the navigable river Sambre, 33 miles S. of Brussels. The town is the center of the large coal-basin of Charleroi. It was one of the first places in Belgium to suffer from the German invasion, and sturdily but ineffectually met the attack of Aug. 21–3, 1914. See APPENDIX: *World War.*

**Charles VII.,** King of France; born in Paris, Feb. 22, 1403, and though only the fifth son of Charles VI. and Isabella of Bavaria, became, by the successive deaths of his elder brothers, heir-presumptive to the crown. That he should ever succeed to it was then extremely problematical, as Henry V. of England was pursuing his career of conquest, and shortly afterward, by the treaty of Troyes, secured to himself the hand of Charles' sister Catharine, and the succession to the French throne after her father's death. On the King of England's death in 1422 his son Henry VI. was proclaimed King of France at Paris. The war with the national party, represented by the Orleanist faction, with the dauphin at their head, was maintained for several years by the English, under the command of the Duke of Bedford. So successfully did the latter conduct operations that Charles was nearly ready to abandon the struggle when his fortunes were retrieved by one of the most singular incidents recorded in history. This was the arrival in his camp of the Maid of Orleans, who by the enthusiasm which she inspired turned the tide of success against the English. Through the intervention of the Earl of Suffolk a marriage was concluded between the young King Henry VI. and Margaret of Anjou, niece of Charles VII.'s queen. In the treaty entered into on this occasion the territory of Maine was secretly surrendered to France, and subsequently, on hostilities being resumed between the two countries, the troops of Charles conquered the whole of Guienne, and finally expelled the English from all their

possessions in France except Calais. The last years of Charles' reign were embittered by domestic broils, in which his son and successor Louis XI. took a prominent part against his father. He died at the castle of Mehun, near Bourges, on July 22, 1461. His share in the treacherous murder of the Duke of Burgundy, and base abandonment to her fate of Joan of Arc, are stains on his memory which can never be effaced.

**Charles IX.,** King of France, born in 1550, ascended the throne at the age of 10 years, after the death of his brother Francis II. During his reign occurred the Massacre of St. Bartholomew's Day. Charles died, childless, in 1574. He was succeeded by his brother Henry III.

**Charles X., Comte d'Artois,** King of France; born in Versailles in 1757; grandson of Louis XV., the youngest son of the dauphin, and brother of Louis XVI. After the downfall of Napoleon he entered France with the title of lieutenant-general of the kingdom, and issued a judicious proclamation, promising the reign of law and an entire oblivion of the past. In 1824 he succeeded his brother, Louis XVIII., under the title of Charles X., and gained a momentary popularity by the abolition of the censorship of the press. He was ignominiously driven from the throne in 1830. After formally abdicating in favor of his grandson, the Duke de Bordeaux, he revisited England, resumed his residence for a short time at Holyrood, and finally settled at Goritz in Styria, where he died of cholera in 1836.

**Charles V.,** Emperor of Germany and King of Spain (in the latter capacity he is called Charles I.); the eldest son of Philip, Archduke of Austria, and of Joanna, the daughter of Ferdinand and Isabella of Spain; born in Ghent, Feb. 24, 1500. Philip was the son of the Emperor Maximilian and Mary, daughter of Charles the Bold, last Duke of Burgundy. Charles birth gave him claim to the fairest countries of Europe. In 1519 Charles, on the death of Maximilian, was elected emperor.

The progress of the Reformation in Germany demanded the care of the new emperor, who held a Diet at Worms. Luther, who appeared at this Diet with a safe conduct from Charles, defended his cause with energy and boldness. The emperor kept silent; but after Luther's departure a severe edict appeared against him in the name of Charles, who thought it his interest to declare himself the defender of the Roman Church.

After the defeat and capture of Francis I. of France the power of Charles became a source of uneasiness to most other princes of Europe. Pope Clement VII. placed himself at the head of a league of the principal States of Italy against the emperor, but their ill-directed efforts were productive of new misfortunes. Rome was taken by storm by the troops of the Constable of Bourbon, sacked, and the Pope himself made prisoner. Charles V. publicly disavowed the proceedings of the Constable, went into mourning with his court, and carried his hypocrisy so far as to order prayers for the deliverance of the Pope. On restoring the holy father to liberty he demanded a ransom of 400,000 crowns of gold, but was satisfied with a quarter of that sum. He also released, for 2,000,000, the French princes who had been given to him as hostages. Henry VIII. of England now allied himself with the French monarch against Charles, who accused Francis of having broken his word. The war terminated in 1529 by the treaty of Cambray, of which the conditions were favorable to the emperor. Charles soon after left Spain, and was crowned in Bologna as King of Lombardy and Roman Emperor. In 1530 he seemed desirous, at the Diet of Augsburg, to reconcile the Reformers to the Roman Church; but not succeeding, he issued a decree against the Protestants, which they met by the Schmalkaldic League. He also published, in 1532, a law of criminal proceedure. Having compelled Solyman to retreat, he undertook, in 1535, an expedition against Tunis, reinstated the dey, and released 20,000 Christian slaves.

The disturbances caused in Germany by the Reformation induced the emperor to accede to the peace of Crespy with France in 1545. The policy of Charles was to reconcile the two parties, and with this view he al-

ternately threatened and courted the Protestants. After some show of negotiation the Protestant princes raised the standard of war. The emperor declared in 1546 the heads of the league under the ban of the empire, excited divisions among the confederates, collected an army in haste, and obtained several advantages over his enemies. John Frederick, the Elector of Saxony, was taken prisoner in the battle of Muhlberg in 1547. Charles received him sternly, and gave him over to a court-martial consisting of Italians and Spaniards, under the presidency of Alva, which condemned him to death. The elector saved his life only by renouncing his electorate and his hereditary estates, but he remained a prisoner. Meanwhile the emperor appeared somewhat more moderately inclined toward the vanquished party. On coming to Wittenberg he expressed surprise that the exercise of the Lutheran worship had been discontinued. The Landgrave of Hesse-Cassel, one of the heads of the Protestants, was compelled to sue for mercy. Notwithstanding his promise Charles deprived him of his freedom. After having dissolved the League of Schmalkalden the emperor again occupied himself with the plan of uniting all religious parties, and for this purpose issued the "Interim," which was as fruitless as the measures proposed by him at the Diet of Augsburg. The fortunes of war changed, and the Protestants dictated the conditions of the treaty of Passau in 1552.

Charles saw all his plans frustrated and the number of his enemies increasing. He abdicated the imperial throne, and selected for his residence the monastery of St. Justus, near Plasencia in Estremadura, and here he exchanged sovereignty, dominion, and pomp for the quiet and solitude of a cloister. His death took place Sept. 21, 1558.

**Charles I.,** King of England and Scotland; born in Scotland in 1600; was the third son of James VI. and Anne of Denmark. Soon after the birth of his son James succeeded to the crown of England, and on the death of Prince Henry in 1612, Robert, the second son, having died in infancy, Charles became heir-apparent, but was not created Prince of Wales till 1616. His youth appears to have passed respectably, little being recorded of him previous to his journey into Spain in company with Buckingham, in order to pay his court in person to the Spanish Infanta. Through the arrogance of Buckingham this match was prevented, and the prince was soon after contracted to Henrietta Maria, daughter of Henry IV. of France. In 1625 he succeeded to the throne on the death of his father. Charles began to employ his threatened mode of raising funds by loans, benevolences, and similar unpopular proceedings; which were wholly opposed to the rising notions of civil liberty throughout the nation, and to the constitutional doctrine which rendered the Commons the guardian and dispenser of the public treasure. Civil war followed, and Charles was defeated and captured. He was tried before a special tribunal on the charge that he had appeared in arms against the Parliamentary forces, and sentence of death was pronounced against him, and only three days were allowed him to prepare for his fate. The interposition of foreign powers was vain. After passing the three days in religious exercises, and in tender interviews with his friends and family, he was led to the scaffold. His execution took place before the Banqueting House, Whitehall, on Jan. 30, 1649, where the ill-fated king submitted to the fatal stroke, in the 49th year of his age.

**Charles II.,** King of England, Ireland, and Scotland; son of Charles I. and Henrietta Maria of France; born in London, May 29, 1630. He was a refugee at The Hague on the death of his father, on which he immediately assumed the royal title. He first intended to proceed to Ireland, but was prevented by the progress of Cromwell. He therefore listened to an invitation from the Scots, who had proclaimed him their king on Feb. 5, 1649, and arrived in the Cromarty Firth, June 16, 1650. In 1651 he was crowned at Scone; but the approach of Cromwell with his conquering army soon rendered his abode in Scotland unsafe. Hoping to be joined by the English royalists, he took the spirited resolution of passing Cromwell and entering England, Carlisle

readily throwing open its gates to receive him. He was immediately pursued by that active commander, who gained the battle of Worcester, and Charles, after a variety of imminent hazards, being on one occasion sheltered for 24 hours in the branches of the famous Boscobel oak, reached Shoreham, in Sussex, and effected a passage to France.

It is the province of history to state the circumstances that produced the Restoration, which General Monk so conducted that Charles, without a struggle, succeeded at once to all those dangerous prerogatives which it had cost the nation so much blood and treasure, first to abridge and then to abolish. This unrestrictive return was not more injurious to the nation than fatal to the family of the Stuarts, which, had a more rational policy prevailed, might have occupied the throne at the present time. On May 29, 1660, Charles entered his capital amid universal and almost frantic acclamations; and the different civil and religious parties vied with each other in loyalty and submission. In 1662 he married the Infanta of Portugal, a prudent and virtuous princess, but in no way calculated to acquire the affection of a man like Charles. The indolence of his temper and the expenses of his licentious way of life soon involved him in pecuniary difficulties; and the unpopular sale of Dunkirk to the French was one of his most early expedients to relieve himself. After a troubled reign he died from the consequences of an apoplectic fit, in February, 1685, in the 55th year of his age.

**Charles XII.**, King of Sweden; born in Stockholm, June 27, 1682; was instructed in the languages, history, geography, and mathematics. On the death of his father in 1697 when he was but 15 years old, he was declared of age by the estates. Frederick IV. of Denmark, Augustus II. of Poland, and the Czar Peter I. of Russia concluded an alliance which resulted in the Northern War. The Danish troops first invaded the territory of the Duke of Holstein-Gottorp. Charles proposed in the Council of State the most energetic measures against Denmark. After making some arrangements respecting the internal administration he embarked at Carlscrona in May, 1700. Thirty ships of the line and a great number of small transports, strengthened by an English and Dutch squadron, appeared before Copenhagen. Arrangements were being made for the disembarkation when Charles, full of impatience, plunged from his boat into the water, and was the first who reached land. The Danes retired before the superior power of the enemy. Copenhagen was on the point of being besieged when the peace negotiated at Travendal was signed (Aug. 8, 1700), by which the Duke of Holstein was confirmed in all the rights of which it had been attempted to deprive him. Thus ended the first enterprise of Charles XII., in which he exhibited as much intelligence and courage as disinterestedness.

After thus checking Denmark the attacks of Augustus and Peter were to be repelled. The former was besieging Riga, the latter menaced Narva and the country situated about the Gulf of Finland. Without returning to his capital, which he never revisited, Charles caused 20,000 men to be transported to Livonia, and went to meet the Russians, whom he found 80,000 strong in a fortified camp under the walls of Narva. On Nov. 30, 1700, between 8,000 and 10,000 Swedes placed themselves in order of battle, under the fire of the Russians, and the engagement began. In less than a quarter of an hour the Russian camp was taken by storm. Thirty thousand Russians perished on the field or threw themselves into the Narva; the rest were taken prisoners or dispersed. After this victory Charles crossed the Dwina, attacked the intrenchments of the Saxons, and gained a decisive victory. Charles might now have concluded a peace which would have made him the arbiter of the North; but instead of so doing he pursued Augustus to Poland. Augustus attempted in vain to enter into negotiations with Charles, who refused to negotiate with him.

The war continued; the Swedes gained a brilliant victory at Clissau; in 1703 all Poland was in the possession of the conquerors; the cardinal primate declared the throne vacant; and by the influence of Charles the

new choice fell on Stanislaus Leczinsky. Augustus hoped to be secure in Saxony, as Peter had meanwhile occupied Ingria, and founded St. Petersburg, at the mouth of the Neva. But the victor of Narva despised an enemy on whom he hoped, sooner or later, to take an easy revenge, and invaded Saxony. At Altranstadt he dictated the conditions of peace in 1706. The Livonian Patkul, who was the prime mover of the alliance against Sweden, was delivered up to him on his demand, and was broken on the wheel. The King of Sweden, however, before he left Germany, required the emperor to grant to the Lutherans in Silesia perfect freedom of conscience; and the requisition was complied with.

In September, 1707, the Swedes left Saxony. They were 43,000 strong, well clothed, well disciplined, and enriched by the contributions imposed on the conquered. Six thousand men remained for the protection of the King of Poland; with the rest of the army Charles took the shortest route to Moscow. But having reached the region of Smolensk he altered his plan, at the suggestion of the Cossack hetman Mazeppa, and proceeded to the Ukraine, in the hope that the Cossacks would join him. But Peter laid waste their country, and the proscribed Mazeppa could not procure the promised aid. General Lewenhaupt, who was to bring reinforcements and provisions from Livonia, arrived with only a few troops. Pultawa, abundantly furnished with stores, was about to be invested when Peter appeared with 70,000 men. Charles, in reconnoitering, was dangerously wounded in the thigh; consequently, in the battle of July 8, 1709, he was obliged to issue his commands from a litter, without being able to encourage his soldiers by his presence. They were obliged to yield to superior force, and the enemy obtained a complete victory. Charles saw the flower of his army fall into the power of those Russians so easily vanquished at Narva. He himself, together with Mazeppa, fled with a small guard, and was obliged to go several miles on foot. He finally found refuge and an honorable reception at Bender, in the Turkish territory.

After his romantic return from Turkey to Sweden Charles continued to fight. He was besieging Frederikshall, when, on Nov. 30, 1718, as he was in the trenches, leaning against the parapet and examining the workmen, he was struck on the head by a cannon ball. He was found dead in the same position, his hand on his sword, in his pocket the portrait of Gustavus Adolphus and a prayer book. A century afterwards, Nov. 30, 1818, Charles XIV. caused a monument to be erected on the spot where he fell.

**Charles XIII.,** King of Sweden; born Oct. 7, 1748; second son of King Adolphus Frederick, and Louisa Ulrica, sister of Frederick the Great of Prussia. His education was directed chiefly to the learning of naval tactics, for which purpose he engaged in several cruises in the Cattegat. The death of Adolphus Frederick recalled him to Sweden, where he took an important part in the revolution of 1772. His brother Gustavus III. appointed him governor-general of Stockholm, and Duke of Sundermannland. In 1774 he married Hedwig Elizabeth Charlotte, princess of Holstein-Gottorp. In the war with Russia in 1788 he received the command of the fleet, defeated the Russians in the Gulf of Finland, and, in the most dangerous season of the year, brought back his fleet in safety to the harbor of Carlscrona, after which he was appointed governor-general of Finland. After the murder of Gustavus III. in 1792, he was placed at the head of the regency, and happily for Sweden, preserved the country at peace with all other nations. In 1796 he resigned the government to Gustavus Adolphus IV., who had become of age, and retired as a private man to his castle of Rosersberg. A revolution hurled Gustavus Adolphus IV., in 1809, from the throne, and placed Charles at the head of the State, as administrator of the realm, and some months afterward, June 20, 1809, as King of Sweden, at a very critical period. He had already adopted Prince Christian of Holstein-Sonderburg-Augustenburg as his successor, and after his death, Marshal Bernadotte, who was elected by the Estates, in August, 1810, to take the place of the prince. On him he bestowed his entire confidence. May 27, 1811, he founded the Order of Charles XIII., which is conferred

Canada in 1849, and entered business and political life. He was elected as a Liberal to the Canadian House of Commons in 1872, and held his seat until his death. He was best known in moral legislation. He died in 1910.

**Charm,** anything believed to possess some occult or supernatural power, such as an amulet, spell, etc.

**Charnel-house,** a chamber or building under or near churches where the bones of the dead are deposited.

**Charon,** the ferryman who conducted the souls of the departed in a boat across the Stygian lake to the infernal regions.

**Charpoy,** in the East Indies, a small, portable bed, consisting of a wooden frame resting on four legs, with bands across to support the bedding.

**Charqui,** jerked beef, the Chilian name of which the English term is a corruption.

**Chart,** a representation of a portion of the earth's surface projected on a plane. The term is commonly restricted to those intended for navigator's use, on which merely outlines of coasts, islands, etc., are represented. A globular chart is a chart constructed on a globular projection. A Mercator's chart is a chart on the projection of Mercator. A plane chart is a representation of some part of the superficies of the earth, in which the spherical form is disregarded, the meridians drawn parallel, the parallels of latitude at equal distances, and the degrees of latitude and longitude equal. A selengraphical chart is a chart representing the surface of the moon; and a topographical chart is a chart of a particular place, or of a small part of the earth.

**Charter,** a written instrument, executed with usual forms, given as evidence of a grant, contract, or other important transacation between man and man.

**Charter-house** a celebrated school and charitable foundation in London, England.

**Charter Oak,** a tree which formerly stood in Hartford, Conn., in the hollow trunk of which the colonial charter is said to have been hidden. The story is that when Governor Andros went to Hartford in 1687 to demand the surrender of the charter, the debate in the Assembly over his demand was prolonged until darkness set in, when the lights were suddenly extinguished, and a patriot, Captain Wadsworth, escaped with the document and hid it in the oak. The venerable tree was preserved with great care until 1856, when it was blown down in a storm.

**Charter Party,** an agreement in writing concerning the hire of a vessel and the freight, containing the name and burden of the vessel, the names of the owner, master, and freighter, and every other particular as to rate of freight, duration of voyage, time of loading and unloading, etc.

**Chartist,** a name given to a political party in England whose views were embodied in a document called the "People's Charter." The chief points were, universal suffrage, vote by ballot, annual parliaments, payment of members, equal electoral divisions, and the abolition of property qualification for members.

**Chartres, Robert Philippe Louis Eugene Ferdinand D'Orleans (Duc de)** grandson of Louis Philippe, King of the French, was born in Paris, Nov. 9, 1840. When only two years old he lost his father, and six years later the Revolution drove him, along with his family, into exile. He joined the Union army in the first campaign of the American Civil War in 1862. Died in 1910.

**Chartreuse, La Grande,** a famous monastery of France, in the department of Isere, 14 miles N. of Grenoble, among lofty mountains, at an elevation of 3,281 feet above sea-level. The access to it is very difficult. It was built in 1084, but having been several times pillaged and burnt down, the present building was erected after 1676.

**Charybdis,** an eddy or whirlpool in the Straits of Messina, celebrated in ancient times, and regarded as the more dangerous to navigators because in endeavoring to escape it they ran the risk of being wrecked upon Scylla, a rock opposite to it.

**Chase, Ann,** an American patriot; born in Ireland in 1809; came to the United States in 1818; settled in New

Orleans in 1832; removed to Tampico, Mex., in the following year, where she met and married Franklin Chase, United States consul, in 1836. During the War with Mexico, in the absence of her husband, she remained at the consulate to protect the American records. On one occasion a mob attempted to pull down the American flag that floated over the consulate, but she protected it with drawn revolver, and declared that the flag should not be touched except over her dead body. Later through her efforts the city of Tampico was taken. She died in Brooklyn, N. Y., Dec. 24, 1874.

**Chase, Salmon Portland,** an American jurist; born in Cornish, N. H., Jan. 13, 1808; educated at Windsor, Vt., in his uncle's family at Columbus, O., and in Dartmouth College; taught school in Washington, while studying law with William Wirt; opened law practice in Cincinnati. In 1846 he argued the Fugitive Slave Law with William H. Seward, in a celebrated case, and his support of the anti-slavery cause soon made him a leader of the Free Soil and Republican parties. In 1849 he was elected to the United States Senate; in 1855 Governor of Ohio; in 1860 was a prominent candidate for the Republican presidential nomination; appointed Secretary of the Treasury by President Lincoln, in 1861, and in 1864 became Chief-Justice, in which office he presided at the impeachment trial of President Johnson. He died in New York city, May 7, 1873.

**Chase, Samuel,** one of the signers of the American Declaration of Independence; born in Somerset Co., Md., April 17, 1741. He was admitted to the bar at the age of 20. Having become a member of the colonial legislature, he distinguished himself by his bold opposition to the royal governor. He took the lead in denouncing and resisting the famous Stamp Act. His revolutionary spirit placed him at the head of the active adversaries of the British government in his State. The Maryland Convention of June 22, 1774, appointed him to attend the meeting of the General Congress at Philadelphia in September of that year. He was also present at the session of December following, and in the subsequent Congresses during the most critical periods of the Revolutionary War. That of 1776 deputed him on a mission to Canada along with Dr. Franklin, Charles Carroll, of Carrollton, and the Rev. John Carroll, afterward Roman Catholic archbishop of Baltimore. He signed the Declaration of Independence with promptitude. In June, 1783, the legislature of Maryland sent him to London as a commissioner to recover stock of the Bank of England, and large sums of money which belonged the State. In 1791 he accepted the appointment of chief-justice of the General Court of Maryland. Five years afterward President Washington made him an associate judge of the Supreme Court of the United States. He was impeached by the National House of Representatives. The trial of the judge before the Senate is memorable on account of the excitement which it produced, the ability with which he was defended, and the nature of his acquittal. He continued to exercise his judicial functions with the highest reputation till 1811. He died June 19 of that year.

**Chase, William Henry,** an American military officer; born in Massachusetts in 1798; was graduated at the United States Military Academy. At the outbreak of the Civil War he entered the Confederate army, and was prominent in the seizure of the Pensacola navy yard. He died in Pensacola, Fla., Feb. 8, 1870.

**Chase, William Merritt,** an American artist, born in Franklin, Ind., Nov. 1, 1849. He studied painting at the National Academy and subsequently in Europe with Piloty, and made a specialty of portraits and figure pieces. He died Oct. 25, 1916.

**Chasing,** the art of working decorative forms in low-relief in gold, silver, or other metals.

**Chassaignac, Charles Louis,** an American physician; born in New Orleans, Jan. 5, 1862; was graduated at the Medical Department of the University of Louisiana; and was president and Professor of Genito-Urinary Diseases at the New Orleans Polyclinic in 1902.

**Chasseur,** a male attendant upon persons of distinction, attired in a military dress, and wearing a sword. It is also the name given by the

French to bodies of light infantry which act as skirmishers and sharpshooters.

**Chastellux, Francois Jean, Chevalier de,** a French historian; born in Paris in 1734; entered the army in 1749; distinguished himself as colonel in the Seven Years' War, and later served in the American Revolution as major-general under Rochambeau, and gained the friendship of Washington. He died in Paris, Oct. 28, 1788.

**Chasuble,** the upper garment worn by a Roman Catholic priest during the celebration of mass.

**Chatard, Francis Silas Mareau,** an American clergyman; born in Baltimore, in 1834. He became rector of the American College in Rome, and in 1878 Bishop of Vincennes, Ind.

**Chateaubriand, Francois Auguste, Vicomte de,** a French author and politician; born in St. Malo, Brittany, Sept. 4, 1768; died in Paris, July 4, 1848.

**Chatham,** a town and port of entry in Northumberland county, New Brunswick; on the Miramichi river and the Intercolonial railroad; 82 miles N. W. of Moncton; is the center of a fertile section, with large grain and livestock interests; and has machine shops and pulp and lumber mills. Pop. 5,212.

**Chatham,** city, port of entry, and capital of Kent county, Ontario, Canada; on the Thames river and the Canadian Pacific railroad; 67 miles S. W. of London; has a large shipping trade in lumber and farm products; and is principally engaged in manufacturing. Pop. 15,400.

**Chatham,** a town, naval arsenal, and seaport of England, county Kent, on the Medway, about 34½ miles by rail from London. The royal dockyard was founded by Queen Elizabeth previous to the sailing of the Armada. It has been greatly enlarged in recent years, and has now capacious docks, in which the heaviest warships can be equipped and sent directly to sea. The town is defended by a strong line of fortifications which also serve as a flank defense for the metropolis. Pop. 46,740.

**Chatham, William Pitt, Earl of,** one of the most illustrious statesmen of Great Britain; son of Robert Pitt, of Boconnoc, in Cornwall; born Nov. 15, 1708; educated at Eton and Oxford. On quitting the university he became a cornet in the Blues, and in 1735 represented the borough of Old Sarum in the House of Commons, where he attracted universal notice. Pitt uniformly supported the cause of the people. Foreseeing the separation of the American colonies from the mother country if the arbitrary measures then adopted should be continued; he advocated, especially in 1766, a conciliatory policy and the repeal of the Stamp Act. In the same year he was invited to assist in forming a new ministry, in which he took the office of privy-seal. In 1768 he resigned, as he found himself inadequately seconded by his colleagues. In the House of Lords he continued to recommend the abandonment of the coercive measures employed against America, particularly in 1774; but his warning was rejected, and in 1776 the colonies declared themselves independent. On April 7, 1778, though laboring under a severe illness, he repaired to the House, to attack the unjust and impolitic proceedings of the ministers toward the colonies. At the close of his speech he fainted and was conveyed out of the House, and afterward removed to his country-seat at Hayes, in Kent, where he died May 11. The Parliament annexed an annuity of £4,000 to the earldom of Chatham; his debts were paid, and he was honored with a public funeral, and a magnificent monument in Westminster Abbey. Another was erected in 1782 in Guildhall.

**Chatham Islands,** a small group in the Pacific, lying 360 miles E. of New Zealand, to which they politically belong. Pop. 600.

**Chattanooga,** city and county-seat of Hamilton Co., Tenn. It is situated on high grounds at the foot of Lookout Mountain, and in the midst of picturesque scenery. It is the site of a National Soldiers' Cemetery, with over 13,000 graves, and the Chattanooga and Chickamauga National Military Park. Chattanooga was settled in 1836, and was originally called Ross's landing. It was incorporated in 1851, and in 1863 was occupied and nearly destroyed by Union forces. It

was the scene of three of the greatest battles of the Civil War: Chickamauga, Missionary Ridge, and Lookout Mountain. The population in 1920 was 57,895.

**Chattels,** property movable and immovable, not being freehold. The word chattels is originally the same word with cattle, all property being reckoned in early periods by the number of heads of cattle possessed, or their equivalent.

**Chatterton, Thomas,** an English youth whose genius, eccentricity, and melancholy fate have gained him much celebrity; born in Bristol in 1752, of poor parents. He died of self-administered poison in 1770, when not yet 18 years old.

**Chaucer, Geoffrey,** "the father of English poetry;" born in London probably about 1340. He was the son of a vintner named John Chaucer. His most celebrated work, "The Canterbury Tales," was written at different periods between 1373 and 1400. He died in London, Oct. 25, 1400, and was buried in Westminster Abbey.

**Chauny,** a town of N. France, 19 miles S. by W. of St. Quentin by rail and 60 miles from Paris; normal pop. about 12,000. The town is on the Oise river, which is here navigable, and before the World War contained mirror-polishing and chemical works, sugar factories, metal foundries, and breweries. Its commercial importance was derived from the St. Gobain glass works. Chauny was the scene of much fighting in the Hundred Years' War, and was in the sphere of great operations in the World War in 1917.

**Chautauqua,** a beautiful lake in New York, 18 miles long and 1/3 broad, 726 feet above Lake Erie, from which it is 8 miles distant. On its banks is the village of Chautauqua, the center of a religious and educational movement of large and growing interest. This originated in 1874, when the village was selected as a summer place of meeting for all interested in Sunday-schools and missions. Since then the Chautauqua Literary and Scientific Circle has taken origin here, consisting of a regular and systematic course of reading, extending over four years and entitling the student to a diploma.

**Chauveau - Lagarde, Claude Francois,** a French advocate; born in Chartres, in 1756. He studied law in his native town and began to practice in Paris shortly before the outbreak of the Revolution. He became celebrated for his eloquent defense of those on trial in the Reign of Terror. He was the advocate of Marie Antoinette at her trial and also of Charlotte Corday. He died in 1841.

**Chauvenet, William,** an American astronomer and mathematician; born in Milford, Pa., May 24, 1819. He was graduated at Yale and became professor of mathematics and astronomy at the United States Naval Academy in 1845 and professor of astronomy at Washington University, St. Louis, in 1859. In 1862 he became chancellor of the last institution. He died in St. Paul, Minn., Dec. 13, 1870.

**Chauvinism,** a French word derived from Nicolas Chauvin, a soldier of the French Republic and of the First Empire. His name became a synonym for a passionate admirer of Napoleon, and the word Chauvinism was formed to signify the almost idolatrous respect entertained by many for the First Emperor; and now used for exaggerated devotion.

**Chazars,** a people of the Finnic stock known in the 7th century on the shores of the Caspian; in the 9th century their kingdom occupied the S. E. of Russia from the Caspian and the Volga to the Dnieper. Their capital was long at Astrakhan, called by them Balandshar. They were singularly tolerant of all religions, Jewish, Christian, and Moslem; and a large part of the nation formally adopted the Jewish faith from Jews who fled from the persecutions of the Emperor Leo. The power of the Chazars was ultimately broken in the 12th century by the Byzantine emperors and the Russians.

**Check, or Cheque,** a draft or bill on a bank, payable on presentation. A check may be drawn payable to the bearer, or to the order of some one named; the first form is transferable without endorsement and payable to any one who presents it; the second must be endorsed, that is the person in whose favor it is drawn must write his name on the back of it.

**Cheese,** the curd or caseine of milk, with variable quantities of butter and common salt, pressed into molds and ripened by keeping.

**Cheetah,** the East Indian name for two species of feline animals, the leopard and the hunting leopard, the latter being much used in India for hunting game.

**Chee-foo** (properly the name of the European colony of the Chinese town of Yen-Tai), a treaty port on the N. side of the peninsula of Shantung, at the entrance to the Gulf of Pechili, in which it is the only port that remains open throughout the winter. The foreign quarter is in some sense a colony of Shanghai, and, having the best climate of all the treaty ports, it is much resorted to by convalescents. The Chinese town, built on the sandy shore, with exceedingly dirty streets, has fortifications, a signal-station, and pop. (1921 Est.) 62,000. The port was the scene of a naval demonstration in 1900, when British and American warships threatened to bombard the forts if their hostile attitude was not abandoned. There were 150 missionaries in the city, whose rescue from peril was thus effected.

**Cheh-Chiang,** or **Cheh-Kiang,** a maritime province of China proper, of very great commercial importance, containing three treaty ports, Ning-Po, Wan-Chau (Wen-Chow), and Hang-Chau (Hang-Chow), all of which are to be connected with Shanghai by a projected railway. Cheh-Chiang is famed for its native system of education. It contains the great religious and literary center of China, Hang-Chow, where thousands of candidates yearly resort for the public examinations. Hang-Chow is also the capital of the province, which is ruled by a viceroy. Marco Polo visited the province in the 14th century, when it contained beautiful temples, now in ruins. The Italians in 1900 laid claim to part of Cheh-Chiang as a sphere of influence, but failed in their demands. Area 36,670 square miles; pop. (1920) 22,043,000.

**Cheironectes,** the Frog-fish, a genus, comprising some of those fishes popularly known under the name of anglers. They are most grotesquely and hideously shaped, having the pectoral fins supported like short feet on peduncles, by means of which they can creep over mud or sand when left dry by the receding tide.

**Cheirotherium,** a name given to a great unknown animal that formed the larger footsteps upon the slabs of the Trias, or upper New Red Sandstone, and which bears a resemblance to the human hand.

**Chel-ab-ku-kil,** or **Ab-ku-kil-chel,** an Indian priest who lived in Yucatan and flourished in the 15th century. His name is mentioned in almost every Yucatanic legend, and fragments of history composed by him are found in documents of Yucatan and Central American missions.

**Chelmsford, Frederic Augustus Thesiger, Lord,** born May 21, 1827, an English soldier; served in the Crimea and through the Indian mutiny, and in 1877 was appointed commander of the forces and lieutenant-governor of Cape Colony. He restored Kaffraria to tranquillity, and was given the chief command in the Zulu war of 1879. On his return to England he was made G. C. B. He died April 9, 1905.

**Chelsea,** a city in Suffolk county, Mass., practically a suburb of Boston; on Chelsea harbor, the Mystic river, and the Boston & Maine railroad; 3 miles from the State house in Boston; is the seat of a United States Naval Hospital, Marine Hospital, and Soldiers' Home; and is chiefly engaged in manufacturing. Pop. (1920) 43,184.

**Chelsea,** a borough of London, England, on the Thames, opposite Battersea, and chiefly distinguished for containing a royal military hospital, originally commenced by James I. as a theological college, but converted by Charles II. for the reception of sick, maimed, and superannuated soldiers.

**Chelyuskin, Cape,** (formerly Northeast Cape, and sometimes called Cape Severo), the extreme N. point of Asia, on a peninsula of the same name, which forms the W. arm of the E. half of the Taimyr peninsula. It is named after a Russian officer who led an expedition thus far in 1742, and here succumbed, with his wife, to the fatigues of the journey.

**Chemistry,** the science treating of the relations and combinations of

atoms, or, that branch of natural science which considers the combination of two or more substances to form a third body with properties unlike either of the components; and the separation from a compound substance of the more simple bodies present in it, each possessing distinct properties. Considering that the steps of the combination and decomposition of substances can never be correctly understood without an intimate knowledge of the properties of substances, it follows that the science of chemistry must take into notice likewise the description of all the simplest as well as of the most complex bodies. Chemistry ranks as one of the arts as well as one of the sciences, and the division of Practical Chemistry comprehends the rules and processes which must be followed and the mechanical means for the prosecution of the art.

**Chemnitz,** a town of Saxony, at the base of the Erzgebirge, and at the confluence of the Chemnitz river, with three other streams, 51 miles S. S. E. of Leipsic. It is the principal manufacturing town of the kingdom, its industry consisting in weaving cottons, woolens, and silks, and in printing calicoes, chiefly for German consumption. It supplies the world with cheap hosiery, and makes mixed fabrics of wool, cotton, and jute for the markets of Europe and the United States. It has several extensive machine-factories, producing locomotives and other steam-engines, with machinery for flax and wool spinning, weaving, and mining industry. Created a free imperial city as early as 1125, Chemnitz, suffered much during the Thirty Years' War. Pop. (1919) 303,771.

**Chemnitz, Martin,** a German Protestant theologian; born in the mark of Brandenburg in 1522. Died at Brunswick in 1586.

**Chemulpo,** Chosen, seaport town (since 1883 a treaty-port), on the W. coast, 25 miles by rail W. S. W. of Seoul, the capital. It was a landing-point for the Japanese occupation of Korea, during the Russo-Japanese war of 1904, and witnessed the first fight, in the sinking of the Russian warships, the Varieg and Korietz. The imports attain a value of $3,500,000 in some years; the exports $1,500,000. Pop. 41,000; the bulk of the 3,000 foreigners are Japanese.

**Cheney, Charles Edward,** an American clergyman; born in Canandaigua, N. Y., Feb. 12, 1836. He was ordained a clergyman of the Protestant Episcopal Church in 1858. Becoming rector of Christ Church, Chicago, he incurred censure for heterodoxy and was tried on that charge and deposed from the priesthood. He at once became a leader in the Reformed Episcopal movement, and was consecrated bishop of the new denomination in 1873, a post he has since held.

**Cheney, Ednah Dow (Littlehale),** an American writer; born in Boston in 1824. She became president of the New England Woman's Club and the Massachusetts Suffrage Association. She died in 1904.

**Cheney, John Vance,** an American writer, born in Groveland, N. Y., Dec. 29, 1848.

**Cheney, Theseus Apoleon,** an American historian; born in Leon, N. Y., March 16, 1830. He died in Starkey, N. Y., Aug. 1878.

**Chenile,** a round fabric or trimming made by uniting with two or more sets of warps, a fine filling or weft. The fabric is then twisted, assuming a cylindrical shape with weft projecting radially from the central line of warps.

**Cheops,** the name given by Herodotus to the Egyptian despot whom the Egyptians themselves called Khufu. He belonged to the rulers who had for their capital Memphis; lived about 2800–2700 B. C., and built the largest of the pyramids. According to Herodotus he employed 100,000 men on this work constantly for 20 years.

**Cherbourg,** a strongly fortified arsenal and seaport of France, in the department of La Manche (The Channel), 196 miles W. N. W. of Paris. It is the works by which it has been converted into a great naval fortress that give it its special importance. These altogether have cost $40,000,000, and were chiefly carried out under Napoleon I., Louis Philippe, and Napoleon III. A United States consul is resident at Cherbourg. Pop. (1921) 50,400.

**Cherbuliez, Victor,** a French romancist; born in Geneva, of a noted family of littérateurs, July 19, 1829. He died in Paris, July 1, 1899.

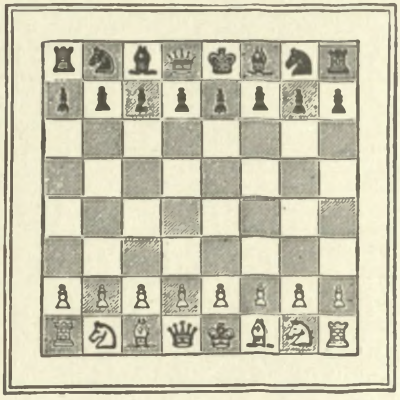
**Cherokee Indians,** a tribe of the Appalachian family of North American aborigines, which occupied for centuries the country E. and S. of the Alleghanies. After the colonization of North America by the whites, a series of wars broke out at periods ranging from 1759 to 1793; when, by a treaty entered into with the United States, they ceded their territory in the Southeastern States, in consideration of a certain cash payment, and an annual subsidy being continued to them. In 1805 they made further concessions of their lands, and, in 1812, fought bravely on the American side. In 1817-1819 new treaties were made, which resulted in the Cherokees being forced to a reservation of territory afforded them W. of the Mississippi. A remnant of the tribe remained, however, in the original reservation in North Carolina. In Oklahoma they occupy at present an area of 7,861 square miles in the N. E. The Cherokees have a chief, an assistant, and a legislature, all chosen by vote. They live in dwellings, not in wigwams. They have an asylum for orphans, seminaries, and 100 private schools. Their capital is Tahlequah. In the original North Carolina reservation the Cherokees number 1,351. They occupy an area of 98,211 acres.

**Cherry,** a fruit-tree of the prune or plum tribe, very ornamental and therefore much cultivated in shrubberies. The American wild cherry is a fine large tree, the timber of which is much used by cabinet-makers and others. The fruit is somewhat astringent.

**Cherubini, Luigi Zenobio Salvatore,** founder of the French Conservatory and instructor of hundreds of eminent musicians; born in Florence, Sept. 1, 1760. In the interval from 1780 to 1788, he composed eleven Italian operas, including "Ifigenia in Aulide," the most successful of the series. He died in Paris, March 15, 1842.

**Chesapeake Bay,** in Maryland and Virginia, and dividing the former State into two parts, is the largest inlet on the Atlantic coast of the United States, being 200 miles long, and from 4 to 40 broad. Its entrance, 12 miles wide, has on the N. Cape Charles, and on the S. Cape Henry, both promontories being in Virginia.

**Chess,** the most purely intellectual of all games of skill, the origin of which has been much disputed, but probably arose in India 5,000 years ago, and thence spread through Persia and Arabia, to Europe and America. The game has undergone many modifications during its diffusion throughout the world, but retains marked traces of its Oriental origin. The game is played by two persons on a board which consists of 64 squares, arranged in 8 rows of 8 squares each, alternately black and white. Each



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player has two sets of pieces of opposite colors of 16 men each, and of various powers, according to their rank. These sets of men are arrayed opposite each other, and attack, defend, and capture like hostile armies. The superior officers occupying the first row on each side are called pieces, the inferior men, all alike, standing on the row immediately in front of the pieces, are called pawns.

The chessmen being placed, the players begin the engagement by moving alternately; each aiming to gain a numerical superiority by capturing his opponent's men, as well as such advantages of position as may conduce to victory.

**Chest,** in man and the higher vertebrates, the cavity formed by the breast-bone in front and the ribs and backbone at the sides and behind, shut off from the abdomen below by the diaphragm. It contains the heart, lungs, etc., and the gullet passes through it.

**Chester,** as an independent word, the name given to a circular fortification in some parts of Scotland; as a suffix, it forms part of the names of many towns among English-speaking people, as Manchester, and indicates that such places were once the sites of Roman encampments.

**Chester,** a city and port of entry in Delaware county, Pa.; on the Delaware river and several railroads; 15 miles S. of Philadelphia. It is the oldest city in the State, having been settled by Swedes in 1643 under the name of Upland. It is noted for its famous ship-building yards, where many vessels of the navy were constructed, as the seat of the Crozer Theological Seminary (Bapt.) and the Pennsylvania Military Academy, and for its diversified manufactures. Chester has a great diversity of industries including foundries, machine shops, woolen and cotton mills. It was incorporated in 1866 and adopted the commission form of government in 1913. Pop. (1920) 58,030.

**Chester,** one of the cathedral cities of England; 16 miles S. E. of Liverpool; has St. John's Church, founded in 698. Pop. (1911) 39,028.

**Chesterfield, Philip Dormer Stanhope,** fourth Earl of, an English statesman and littérateur; born in London, Sept. 22, 1694. He entered public life in 1715, and took an active part in the petty intrigues and party squabbles which made up the parliamentary and court history of the reign of George II. The only writings of this accomplished person that are at all remembered are his "Letters" to his son, remarkable for their ease of style and their knowledge of society, but notoriously reprehensible for the principles of conduct which they inculcate. He died March 24, 1773.

**Chesterton, Gilbert Keith,** an English journalist and author; born at Campden Hill, Kensington, in 1874; essayed poetry in boyhood; became an artist, more for recreation than profit; engaged in book-reviewing for several London magazines; then launched into authorship. In 1917 he was considered the most conspicuous figure in British journalism, a master of paradox, epigram, and anti-climax, always entertaining, brilliant, and belligerent.

**Chetah,** the hunting leopard of India, a native of Arabia and Asia Minor. It has its specific name (jutata, crested or maned) from a short mane-like crest at the back of the head. When used for hunting it is hooded and placed in a car. When a herd of deer is seen, its keeper places its head in the proper direction and removes its hood. It slips from the car, and, approaching its prey in a stealthy manner, springs on it with several bounds. It is about the size of a large greyhound, has a cat-like head, but a body more like a dog's. A slightly different species inhabits Africa.

**Chevalier, Michel,** a French economist; born in Limoges, Jan. 13, 1806. He became a councillor of state (1838), professor of political economy in the Collége de France (1840), member of the chamber of deputies (1846), and a member of the Institute (1851). He died in Montpellier, Nov. 28, 1879.

**Cheviot,** (from the name of a border mountain range in Scotland—the Cheviot hills), (1) a variety of mountain sheep, named from the Cheviot hills, where they abound; (2) a kind of coarse woolen cloth used principally for men's clothing.

**Chevreul, Michel Eugene,** a French chemist; born in 1786. He wrote various works on chemistry, dyeing, etc. Died 1889, 103 years old.

**Chevy Chase,** the name of a celebrated British Border ballad, which is probably founded on some actual encounter which took place between its heroes, Percy and Douglas. There are two versions of the ballad, the oldest, originally called "The Hunting of the Cheviot," being mentioned in the "Complaynt of Scotland," written in 1548, and the later one, believed to date from the reign of Charles II. (1660–1685), which forms the subject of the critique by Addison in Nos. 70 and 74 of the "Spectator." The ballad is not historically accurate.

**Cheyenne,** city, capital of the State of Wyoming, is situated on a plateau 6,075 feet above the sea and contains Fort Russell, a United States military post, and the main repair shops of the Union Pacific railroad. Pop. (1920) 13,829.

**Cheyennes,** a tribe of American Indians, originally of Algonquin or Dakota stock, at one time settled in Wyoming. To the number of 2,069 (1899), they were settled in Oklahoma on a reservation of 529,682 acres. They are in a backward state of civilization and possess a primitive form of tribal government.

**Chiang-hsi,** or **Kiang-si,** one of the 18 provinces into which China proper is divided. The area is 69,480 square miles. Pop. (according to 1920 census published by the government in 1921), 12,258,000. The province contains the treaty port of Kin-Kiang or Chin Chiang, on the Yang-tze-Kiang, a town of 53,000 inhabitants. Here are established famous manufactories of porcelain. The province produces tea and silk, besides porcelain.

**Chiang-Su,** or **Kiang-Su,** an important maritime province of China proper. It has an area of 38,600 square miles (about that of Pennsylvania), and a pop. estimated in 1920 at 33,786,000, according to the census published by the Government in 1921. The great commercial importance of this province is denoted by its possession of four treaty ports, Shanghai, Nanking, Su-Chow, and Chin-Kiang. Half the foreign population of China (Est. as 18,000) is established in this province. The capital is Nanking. Commercially the province is controlled by the English, who have invested largely in railways, mills and government concessions.

**Chiapas,** a State of the Republic of Mexico, on the Pacific slope, having an area of 27,222 square miles and a pop. (Est.) about 440,000. The capital, Tuxtla Gutierrez, is also the chief town. The State is in many parts mountainous, and is also in many parts traversed by noble streams, including the Rio Chiapas. It forms part of the Central American tableland, and has a fine climate, although the whole region is largely clothed in primeval forests.

**Chiaro-oscuro,** that branch of painting which has for its object the combination and arrangement of the light and shadow of a picture to the best advantage.

**Chibchas,** or **Muyscas,** a tribe of South American Indians who formerly lived E. of the Magdalena river, occupying the region from its head waters to the Sierra Nevada de Merida. They were partially civilized. They were ruled by women as well as men in the line of succession, and believed in a Supreme Being. They were conquered in a war with the Spaniards in 1537 and their descendants constitute a large part of the present population of Colombia.

**Chibouque,** a Turkish pipe with a long stem.

**Chica,** or **Chicha,** the name given in Brazil to a species of Sterculia, the seeds of which are eaten. They are about the size of a pigeon's egg, and have an agreeable taste. Also a red coloring matter used by some tribes of North American Indians to stain the skin. The word is also used as a name of a dance popular among the Spaniards and the South American settlers descended from them.

**Chicago,** city, port of entry, and county-seat of Cook Co., Ill.; the second city in population in the United States. It is built on the S. W. shore of Lake Michigan, about 18 miles N. of its S. extremity. It is the center of the Western and Lake commerce and has a large water front of over 100 miles. The city is one of the greatest commercial centers in the world and is center of steamship and railroad lines which radiate to every part of the United States and to the world. To handle its water-borne commerce the city has added immensely to its dock and rail facilities, which now extends over 55 miles on the water front. A municipal pier, constructed at a cost of over $5,000,000, is one of the features of this development which has made Chicago pre-eminent as a shipping port. 3,000,000 tons of freight was shipped during 1922. At the mouth of the Calumet river, in South Chicago, is another harbor 300 feet wide between piers. The Erie canal, terminating at Buffalo, provides a means of commercial communication with the Atlantic ports.

Area 199 square miles: population (1890), 1,099,850; (1900), 1,698,575; (1916, est.) 2,550,000.

The city was built originally on the flat prairie, at an elevation too low to secure proper drainage. When this became apparent the grade of the whole city was raised 7 feet and the streets and buildings brought to the new level. The Chicago river traverses the city, and by its peculiar course divides it into three sections, known as the North, South and West Sides, which are connected by many bridges.

The city owns an extensive water works system. It was found that as the city grew, the old water supply became inadequate, and in order to reach a point in the lake where the water would be uncontaminated by sewage, cribs were built two to four miles out, with a tunnel connecting them with the shore. By 1900 there were five of these cribs, 35 miles of tunnel and 1,802 miles of main. On Jan. 17, 1900, a drainage canal was opened to carry off the city's sewage. It consists of an open drain connecting the Chicago and Des Plaines rivers, and extending thence to the Illinois and Mississippi rivers.

Chicago is surrounded by some of the largest and finest parks and boulevards in the country. The park area in 1916 was 4,600 acres and comprised about 80 parks and squares, and the boulevards had a length of about 48 miles within the city limits and large suburban extensions. There are six large parks, Lincoln, Humboldt, Garfield, Douglas, Washington, and Jackson, all connected by boulevards. The Sheridan road is a superb driveway running along the lake shore to Fort Sheridan, 25 miles distant.

Chicago is noted for the number, size and height of its public and business buildings, and for their handsome and complete interior finishings. Among them are: the Auditorium, ten stories high, contains the largest theater and opera house in the world, capable of seating 7,000 persons, a great hotel with 400 guest rooms, and also 136 offices and store rooms, cost $2,000,000; the Art Institute, which ranks among the first art museums in the country; Board of Trade Building; Chicago Stock Exchange, 13 stories high; the Monadnock building, 16 stories high, containing 1,600 offices and costing $2,500,000; the Capitol Building; the Wrigley Building, 16 stories, 398 feet in height, costing $6,500,000; new Tribune Tower, 21 stories, 439 feet in height, costing $7,000,000; Strauss Building; Field Museum, costing $10,000,000; the new Palmer House has over 4,000 rooms and its total cost, including ground, was $80,000,000; the Morrison Hotel is the highest building built at the highest point in the city. It has 3,400 rooms and is 42 stories in height.

Its elevator warehouses have a capacity of over 52,000,000 bushels of grain. The situation of the city on Lake Michigan affords it a vast marine commerce through the Great Lakes and by canals to the Atlantic Ocean. The principal industries were wholesale slaughtering and meat packing, foundry and machine shop products, men's clothing, in factories; iron and steel, cutlery and allied products, wire and wire cables, and various agricultural implements, railroad cars, printing and publishing, masonry, and malt liquors; bakery products, coffee and spices, furniture, electrical supplies, women's clothing, soap and candles, wholesale slaughtering (without meat packing), linseed oil, planing mill products and confectionery. Chicago is the greatest live stock and grain market in the world, as well as the greatest railroad center.

At the close of the school year 1914–15, the children of school census age aggregated 954,413; the enrollment in public day schools was 345,512 and in private and parochial schools (largely estimated) 114,000, and the average daily attendance in public day schools was 291,255. For higher education there were 23 public high schools, one public normal school, one endowed normal school, 27 private secondary schools, St. Ignatius College (R. C., opened 1869), and the University of Chicago (1892). The principal private secondary schools were Lewis Institute, Chicago Institute, Seminary of the Sacred Heart, De La Salle Institute, University School, Harvard School, Kirkland School, St. Xavier's Academy, and Kenwood Institute. There were 30 training schools for nurses, mostly connected with hospitals. Chicago has 1,183 churches, chap-

els, and missions. There are 102 hospitals and dispensaries in the city. Among the largest of the former are the Mercy, Cook County, Michael Reese, United States Marine, and the Hahnemann. The benevolent institutions include the Old People's Home, Newsboys' Home, Washington Home for the Reformation of Inebriates, Foundlings' Home, Home for the Friendless, and the Protestant, St. Joseph's and St. Mary's Orphan Asylums.

Under the National Banking Act of 1913, Chicago became the central reserve District. The City of Chicago had by the 1920 census 10,537 establishments with 502,100 workers and a total output valued at $3,657,424,491. Municipal appropriations for all purposes in 1922 amounted to $138,076,688.97. Bank clearings in 1921 were $25,974,692,057. There are about 250 National and State banks. Newspapers and periodicals number over 800. The city's debt in 1923 was $62,331,670 with assessed valuation of real estate at $3,415,635,420. Chicago's park and boulevard system, is the most ambitious ever conceived by any city of the world. Three large parks are already developed, connected by a wide boulevard along the lake front and cutting through the heart of the city.

The site of Chicago was first visited by Joliet and Marquette, French missionaries and explorers, in 1673. In 1685 a fort was built there, commanded by an officer in the Canadian service, and before the end of the 17th century the Jesuits made it a mission post. Indian hostilities prevented further occupation till the United States government established there the frontier post of Fort Dearborn in 1804, which was destroyed by Indians in the War of 1812, but rebuilt in 1816, when a permanent settlement began.

In 1830 the entire population was only 70 persons, but in 1835 a town was organized, and in 1837 it was incorporated as a city with 4,000 inhabitants and an area of 10 miles. On Oct. 8 and 9, 1871, occurred the memorable fire which reduced a large part of the city to ashes, destroyed its entire business center, and swept over an area of more than three square miles, causing a loss of about $190,000,000. Nearly 20,000 buildings were consumed, 100,000 people were made homeless, and 200 lives were lost. Another disastrous fire broke out in 1874 in the heart of the city, which consumed 18 blocks and over 600 homes, with a loss of over $4,000,000. The Haymarket anarchist riots (May, 1886) caused the death of six police officers, and several others wounded; 8 rioters were convicted and 4 executed. The World's Columbian Exposition (May 1 to Oct. 30, 1893) better known locally as the World's Fair, caused an expenditure of over $43,000,000 and was visited by 17,000,000 people. The Centennial of the settlement of Chicago was celebrated Oct., 1903. April, 1927, gave William Hale Thompson (a former mayor) an election plurality of 83,000.

**Chicago Drainage Canal,** a canal intended chiefly for carrying off the sewage of Chicago, but which may be used for commercial purposes; begun in September, 1892; completed in January, 1900. The main channel is 29 miles long, extending from Chicago to Lockport on the Illinois river, into which stream it discharges. About 9 miles of the channel is cut through solid rock, with a minimum depth of 22 feet and a width of 160 feet on the botton in rock, which makes it the largest artificial channel in the world. The length of the waterway from the mouth of the Chicago river to its terminus S. of Joliet is about 42 miles. The cost of the canal was estimated at about $45,000,000.

**Chicago, University of,** a co-educational (non-sectarian) institution in Chicago, Ill., founded by John D. Rockefeller, dating from Sept. 10, 1890, when the institution was incorporated under the laws of Illinois. A previous institution known as the University of Chicago had gone out of existence, owing to financial difficulties, in 1886. A number of Baptists desired to have a college in Chicago, and succeeded in interesting John D. Rockefeller in the plan. He promised $600,000 toward the establishment of the college if $400,000 more should be raised by June, 1890. This amount was duly raised, and the plan was enlarged in scope so as to include a university instead of a mere college. The University was opened Oct. 1, 1892. The endowment of the College in 1924 was $32,054,643 and its assets exceeded $45,000,000.

**Chickadee,** the popular name of the black-cap titmouse.

**Chickahominy,** a river in Virginia, affluent of the James and running parallel to it for many miles from its source N. W. of Richmond. On and near it occurred many of the most important events of McClellan's Peninsular campaign in 1862. The second battle of Cold Harbor under Grant took place in 1864.

**Chickamauga, Battle of,** an engagement fought Sept. 19–20, 1863, between the Union army under Rosecrans and the Confederate under Bragg and Longstreet. Out of about 100,000 troops engaged, some 30,000 were reported as killed, wounded and missing — a very bloody and practically drawn battle, though claimed as a Confederate victory, and causing the replacement of Rosecrans by Grant. But for the splendid stand made by General George H. Thomas it would have been a Union defeat.

**Chickasaw,** an Indian tribe, occupying a reservation near the center of Oklahoma in Grady county. The tribe has a chief and a legislature chosen by popular vote.

**Chickasha,** city and capital of Grady county, Okl.; near the Wichita river and on the Chicago, Rock Island & Pacific and other railroads; 39 miles S. of Oklahoma City; was the chief town of the Chickasaw Nation in the former Indian Territory; is largely engaged in mercantile and farming interests; and has lumber, flour, cotton, and cotton-seed oil mills, and brick yards. Pop. (1920) 10,179.

**Chicopee,** a city in Hampden county, Mass.; on the Chicopee and Connecticut rivers and the Boston & Maine railroad; 4 miles N. of Springfield; is an important manufacturing city, with fine water power from Chicopee Falls; chief products, cotton and brass goods. Pop. (1920), 36,214.

**Chief,** in heraldry, the upper part of the field cut off by a horizontal line. It generally occupied one-third of the area of the shield.

**Chief Justice,** the title of the chief member of the United States Supreme Court, also of the judges holding similar rank in some of the States. In Canada it is the title of the leading judge of the Dominion and Provincial Supreme Courts, and in England the presiding judge in the Queen's Bench Division of the High Court of Justice is called a "Lord Chief Justice."

The following is a list of the persons appointed as Chief-Justice of the Supreme Court of the United States.

John Jay, of New York.
Oliver Ellsworth, of Connecticut.
John Marshall, of Virginia.
Roger Brooke Taney, of Maryland.
Salmon Portland Chase, of Ohio.
Morrison R. Waite, of Ohio.
Melville W. Fuller, of Illinois.
Edward D. White, of Louisiana.
William H. Taft, of Ohio.

**Chigi,** a princely Italian family, whose founder was Agostino Chigi (died 1512), of Siena, who in Rome became banker to the popes, and was noted for his pomp and encouragement of art.



CHICORY.

**Chignecto Bay,** an inlet at the head of the Bay of Fundy, in British North America. It separates Nova Scotia from New Brunswick, is 30 miles long and 8 broad, and has an isthmus of only 14 miles in width between it and Northumberland Strait, in the Gulf of St. Lawrence. In October, 1888, work was begun on the

construction of a ship railway across the neck of land connecting Nova Scotia with the main land of Canada. The promoters had spent nearly $4,000,000 on the work, when in 1890 a financial depression in London prevented them from obtaining further capital. In March, 1901, the undertaking was revived.

**Chignon,** (1) the back of the neck, (2) back hair; the back hair of women, a protuberance of artificial hair on the hinder part of the head, worn by women about 1866–1875.

**Chigo, Chigre,** or **Jigger,** a West Indian and South American species of apterous insect of the flea kind, which penetrates the skin and breeds there, unless speedily eradicated.

**Chihuahua,** the largest State of Mexico; bounded on the N. and N. E. by New Mexico and Texas; area, 87,802 square miles; pop. (Est.) 500,000. The State is better adapted for stock-raising than for agriculture; the fertile districts are mainly confined to the valleys and river courses. Cotton is grown in the S. The silver mines were for centuries among the richest in Mexico, and mining is still the chief industry. The capital, Chihuahua, 225 miles S. of El Paso, rises like an oasis in the desert, among roses and orange groves. The city and State were frequently raided by the Villa bandits in 1915–17. See APPENDIX: *Mexican Campaign.* Pop. (Est.) 42,000.

**Child, Lydia Maria,** an American prose-writer; born in Medford, Mass., Feb. 11, 1802. She was an ardent abolitionist, and published the first book written on that subject, entitled "Appeal for that class of Americans called African." Dr. Channing went over to Roxbury to thank her for it. She died in Wayland, Mass., Oct. 20, 1880.

**Children, Societies for the Prevention of Cruelty to,** organizations that had their origin in New York City, and have since been adopted in most American and many European cities.

**Children's Crusade, The,** a singular movement in 1212, preached in France by Stephen, a peasant boy, and in Germany the same year by Nicholas, also a peasant boy. Some 90,000 children left their mothers and schoolmasters in the spring "to rescue the Holy Land from the infidels." Part perished by shipwreck and the rest were sold into slavery.

**Childs, George William,** an American philanthropist and publisher; born in Baltimore, Md., May 22, 1829. He published the Philadelphia "Public Ledger," 1864–1894. He assisted in establishing a home for printers at Colorado Springs. He died in Philadelphia, Feb. 3, 1894.

**Chile,** a Republic of South America, bounded on the N. by Peru, E. by Bolivia and the Argentine Republic, S. and W. by the Pacific Ocean; area, 289,829 square miles; pop. (1921) 3,774,485; principal towns, Santiago (capital), 507,296; Valparaiso, 182,242; Concepcion, 66,074; Iquique, 37,424; Talca, 36,079; and Orillan, 30,881.

The climate of Chile is temperate. The temperature is remarkably even and pleasant, and always cool at night. The S. wind blows fiercely during many days of summer, dry and cold; the N. wind brings heat, tempest and rain; other winds are unknown. Central Chile, between lat. 32° and 36°, is fertile. In Southern Chile generally the land is poor, and on account of excessive rain of hardly any value for agriculture, which, indeed, is carried on in a very primitive fashion, but the soil of the valleys, where large herds of cattle graze, is very fertile.

Chile was the first South American State to construct railways. In 1915 there were 5,015 English miles of lines open to traffic, of which the State owned 3,236 miles. The Arica to La Paz railway, with a length of 266 miles, of which 127 are in Chile and 139 in Bolivia, was opened Aug. 6, 1912; cost, $12,250,000. A railway system crossing the Andes has 18 miles in Chile and 88 in the Argentine Republic. Chili is the world's second largest producer of copper. In 1920, 91,226 metric tons were produced. It also supplies 95 per cent of the world's nitrates—2,606,571 metric tons in 1920.

The government is that of a republic, the chief magistrate being a President, elected for five years, who is thereafter ineligible to immediate reëlection. The President has a cab-

inet consisting of six members and a Council of State of 11, six of whom are named by Congress. Legislation is conducted by a Chamber of Deputies, chosen by popular vote, and who serve three years, renewable by thirds every three years; and a Senate, members of which are chosen for nine years. For administrative purposes Chile is divided into 23 provinces and 1 territory, and the provinces in turn into departments, sub-delegations and districts. Each province is governed by an intendant, who also acts as governor of the department in which the capital of the province is situated. The departments are governed by governors, the minor divisions by sub-delegates and inspectors. The established religion of Chile is Roman Catholic, but the constitution guarantees freedom of worship. Education receives much attention, but is not compulsory.

The name of Chile is supposed to be derived from an ancient Peruvian word signifying "snow." The N. portion, as far as the river Maule, formed part of the dominions of the Incas of Peru, and the S. was held by the valiant Araucanians. The first European to land in Chile was the Portuguese discoverer Magellan, at Chiloe, in 1520. After the conquest of Peru by Pizarro, an expedition was made to Chile from that country overland, under the leadership of Diego de Almagro, in 1535. This expedition penetrated as far as the Rio Clano, but returned unsuccessful. Another was sent under command of Pedro Valdivia in 1540, which succeeded in annexing the territory as far as the river Maipu. Santiago, the capital, was founded by Valdivia in 1542. During the colonial period the governors of Chile were appointed by the King of Spain, but were subordinate to the viceroys of Peru. In 1810 a revolt against the Spanish power broke out, in which Don Bernardo O'Higgins, son of one of the last viceroys of Peru, but a native of Chile, played a conspicuous part, and finally became the first dictator of the new republic. The conflict between the Spanish troops and the Republican army continued until 1826, when peace was definitely settled and Chile left to govern itself. The first constitutional president was Gen. Blanco Encalada. The government was unsettled till 1830. In 1833 the present constitution was adopted. Revolutions broke out in 1851 and 1859, but since then there has been no serious attempt to overturn the government by force of arms. In 1864 Chile gave Peru very valuable support in her war with Spain. In 1879 Chile declared war against Bolivia on account of an alleged violation of treaty rights, and immediately after against Peru, with which Bolivia was allied. For a time the Peruvian fleet kept the Chilians in check, but in August, 1879, the Peruvian ironclad "Huascar" was captured by the Chilian men-of-war "Cochrane" and "Blanco Encalada," both armor-plated. After this event the success of the Chilians was uninterrupted. Peruvian towns were bombarded, and their other warships captured. Finally Lima was taken by storm on June 21, 1881. The Chilians occupied Lima and Callao until Oct. 30, 1885, when a treaty of peace was signed between Chile and Peru. Up to 1900 no treaty of peace had been signed by Chile and Bolivia; a treaty of indefinite truce having been agreed to in 1884. In 1885 Jose Manuel Balmaceda, representing the Liberal party, was elected President. The hostile factions organized a rebellion and formed a junta, under whose management the forces of Balmaceda were repeatedly defeated. He committed suicide Sept. 19, 1891. In a riot in Valparaiso some United States marines were set upon and wounded. Reparation was demanded and refused, and war between Chile and the United States seemed imminent. Two war vessels were sent to Chile to enforce the demands of the U. S. and an apology and compensation were given. In 1902 the boundary dispute with Argentina, arbitrated by Great Britain, led later to a treaty of continuous peace.

**Chi-Li,** or **Chih-Li,** one of the 18 provinces into which China proper is divided. It has an area of 115,800 square miles. It is in many respects the most important of the Chinese provinces, containing as it does the imperial capital. Pekin, the treaty port of Tien-Tsin, and the only completed line of railway in the Empire. The Great Wall runs across the whole of the N. part of Chi-Li, while on the coast are the forts of Taku, and the

nearest approach to a naval station belonging to the Chinese government. There are Christian missionaries of many denominations throughout the province. By the census of 1920 the population of the province was 34,187,000. This census was officially compiled by the Chinese Post Office and announced in 1921. Chi-Li has valuable coal mines at Kai-Ping, and other mineral resources. The soil is fertile. The provincial capital is Tientsin, estimated pop. 800,000.

**Chilkat Inlet,** the W. arm of Lynn Canal, an inlet in Alaska.

**Chilkat,** or **Dalton, Pass,** a route in Alaska traversed by miners in reaching the gold fields of the Klondike.

**Chilkoot Inlet,** the Eastern arm of Lynn Canal, an inlet in Alaska.

**Chilkoot Pass,** a pass over the mountains in the Northern part of Alaska, traversed by thousands of gold-seekers in the Klondike gold fields excitement in 1897–1898. By way of the Chilkoot Pass is the most direct route to Dawson City, the principal starting point to the Klondike region.

**Chillicothe,** Ohio, capital of Ross County, 50 miles S. of Columbus, was the capital of Ohio (1800–10). It is an agricultural and industrial centre. Pop. (1910) 14,508.

**Chillon, Castle,** a fortress of Switzerland, in the canton Vaud, 6 miles S. E. of Vevay. It stands on an isolated rock at the E. end of the Lake of Geneva. It was built in 1238, by Amadeus IV. of Savoy, and was long used as a State prison.

**Chiloé,** the insular province of Chile; consists of the island of that name on the W. coast, which is 115 miles long, with a maximum breadth of 43 miles, and is separated from the mainland by a narrow strait on the N., and by a gulf 30 miles wide on the E.; and of a number of neighboring islets, mostly uninhabited; total area, 6,979 square miles; pop. (Est.) 100,000, almost all Indians living on the principal island.

**Chimborazo,** a conical peak of the Andes, in Ecuador, 20,517 feet above the sea, but only about 11,000 above the level of the adjacent Quito valley.

**China,** by turns, alternately a republic, an empire, and again a republic, is the most populous and, excluding Siberia, the largest country in Asia. China Proper is remarkable as the most compact nationality in the world, having an area estimated by the Government at 1,532,420 square miles, with a population of 320,000,000. The rest of the country includes the dependencies of Manchuria, Mongolia, Inner Tibet, and Turkestan, which cover an area of 2,744,750 square miles, with a population of about 29,000,000.

The dependencies are described under their respective headings, and this article refers to China Proper, ancient Cathay or The Middle Kingdom, the centre of power and people. It occupies the E. slope of the tablelands of Central Asia, and is almost in the form of a square. Two-thirds of the interior are estimated to be mountainous; the central and northern hills are off-shoots of the Kuen-lun range, while in the southeast extensive chains stretch from the Tibetan highlands to the eastern seaboard. Between these mountain-systems, and almost parallel flow the two great rivers of China, the Hwang-ho, and the Yangtze. Besides these rivers and their numerous tributaries, the most notable are the Se-Kiang in the south, and the Pei-ho in the north. The waterways are the highways of China; joined by a vast network of canals, they form a gigantic system of inland communication, always thronged with craft of every description. The coast-line, an irregular curve of about 2,500 miles, is fringed with islands, the largest of which, Formosa, was ceded to Japan after the war of 1894–5. The greater part of China lies within the temperate zone, but the climate is marked by a great range of temperature, from tropical heat in the south, to arctic conditions in the north, according to seasons. The flora, forestry, and fauna, are allied to the climatic conditions. China is well supplied with minerals, including gold, silver, copper, and iron; there are extensive coalfields, inexhaustible beds of kaolin, or porcelain earth, and salt is abundant. Covering an immense area in the north, is the loess deposit, a brownish-yellow earth of great fertility, wafted thither by the simoons and winds of the ages, from the disin-

tegrating Himalayan plateaux. Agriculture is held in veneration; rice as the principal food of the people is the staple crop, but other grains also are grown. The mulberry tree is extensively cultivated for silkworms, while the opium poppy, and the tea-plant, furnish important crops. The chief manufactures are silk, paper, porcelain and cotton goods; the inventiveness of the Chinese is of ancient date, paper-making, printing, gunpowder, etc., having been discovered by them long before they were known to Occidental nations. Besides an enormous domestic trade, a considerable and increasing import and export trade is carried on; tea, raw and manufactured silk being exported, and cotton goods, metals, metal goods, and opium being imported. Forty-seven treaty ports were open (1917) to foreign commerce. The principal cities are, Peking, the capital, with pop. est. in 1920 at 1,200,000, Canton, Tientsin, Han-kau, Nanking, Shanghai, Ningpo, Fu-chau, Amoy, Swatow, and 30 or 40 more, with a population from 800,000 to 1,320,000. In 1914 5,960 miles of railway were open for traffic, and 2,273 miles more were building; there were nearly 36,500 miles of telegraph lines, which were being extended throughout the country. Peking is in direct telegraphic and railway communication with Europe. China is being gradually opened up to foreign intercourse through missionary and political influence, but a great part of the country is still unknown to foreigners. The modern development of the export trade, railways, telegraphs, etc., has been due to foreign rivalry for China's trade, and has led to a complication of interests whence have arisen the political catch-phrases, "The Integrity of the Chinese Empire," "The Open Door." Various foreign "spheres of influence," and "concessions," recognized and granted by the Chinese Government, are the Russian, British, and French "spheres of influence," and the American and German "concessions," respectively centred—the Russian in Manchuria, the British at Wei-hai-Wei and in the Kau-lung Peninsula opposite their insular possession, Hongkong; the French at Pakhoi and the southern provinces of Kwang-si, and Yun-nan, the American in Han-kau, Wu-chang, and Canton; and the German in 1897–1914 at Kiaochau.

Ethnologically the Chinese belong to the Mongolian race, with the characteristic conformation of the head and face, tawny skin, black and lank hair (which as a sign of subjection to their Tartar conquerors they wear in the form of a queue or "pig-tail"), oblique eyes, high-cheek bones, and monosyllabic language. They are peaceable and domesticated; capable of a high degree of organization and local self-government, thrifty, sober, industrious, literary but unimaginative, and thoroughly imbued with a practical, commercial spirit. The principle of filial piety, and ancestral worship form the basis of Chinese society. Vacillation, duplicity, and insincerity, largely the result of excessive politeness and the desire to please, gambling, and opium smoking, are among their vicious traits. Education is general, and is largely fostered by the Chinese executive system which is based on those noteworthy competitive examinations, which are intended to sift out from the millions of educated Chinese, the best and ablest for the public service. Many young men of the higher classes are sent to the United States and Europe for instruction in English and the sciences. In 1898 an "Imperial University of China" was established by imperial decree. Dr. William A. P. Martin, an American missionary and educator, was appointed first president of this institution, and three of its professors are from the United States.

The Confucian, the Buddhist, and the Taoist, are the chief forms of religion; Confucianism and Taoism are indigenous, but Buddhism was introduced from India. Confucianism, the basis of their social and political systems, has been professed by all their greatest men, and is still the sole belief of the educated classes.

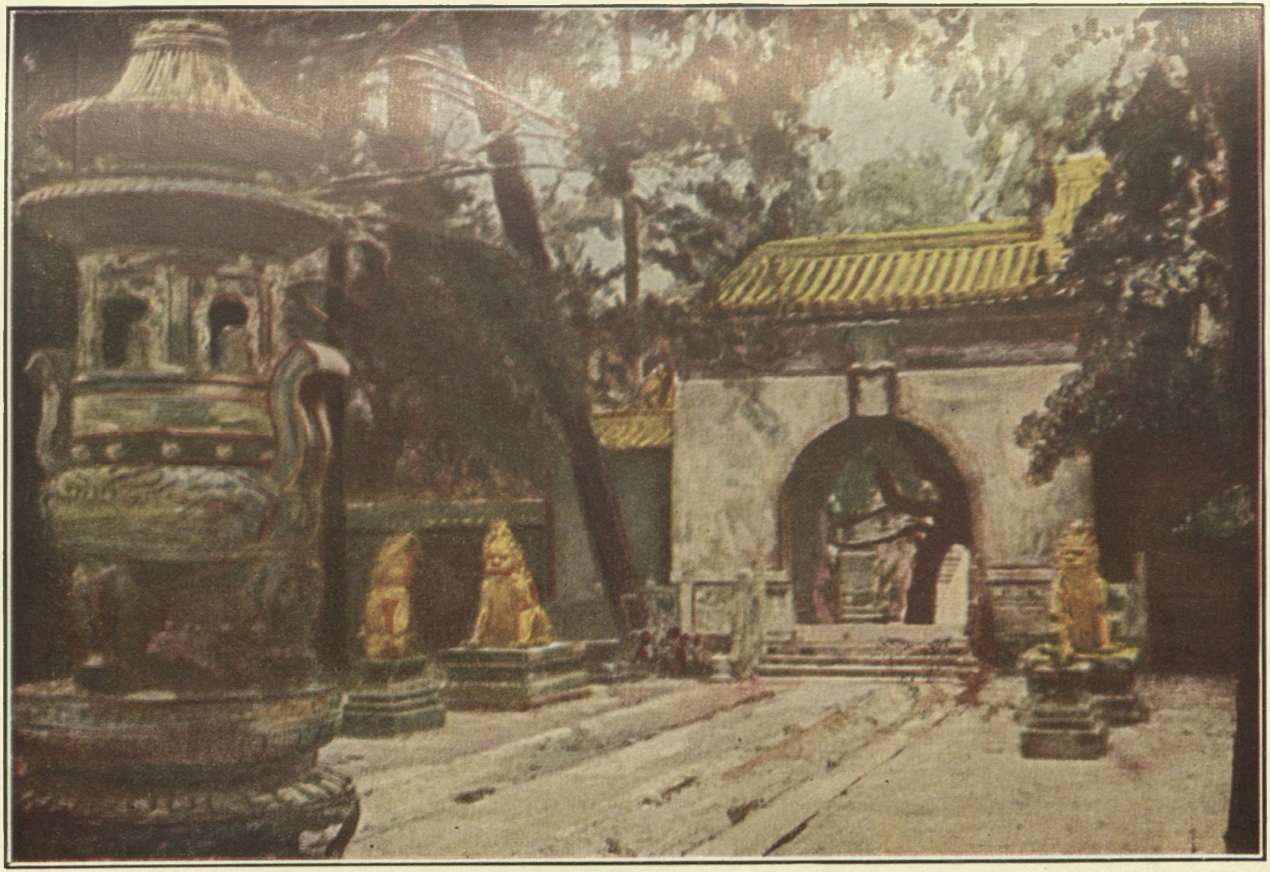
For many years the Empress Dowager ruled the empire as regent or as practical empress. She died November 15, 1908, the Emperor Kuang-Hsu having died November 9, Pu-Yi, a child emperor two years old, succeeded, the government being placed in the hands of a regent. The provincial governor or national delegate possesses

the power of life or death, and under him are the superintendent of provincial finances, the provincial criminal judge, and the provincial educational examiner; each communicates through the governor with his especial board in Peking. China has (on paper) an enormous army, each of the 18 provinces being supposed to provide a military force or corps of 8,000 to about 68,000 men, and aggregating from 540,000 to 660,000, known as the Ying Ping or National Army, and called also the Green Flags and the Five Camps—five being the unit of sub-division. The élite of the army is the Shen-Che-Yeng (Black Flags), the foreign-drilled Tientsin Army corps, about 35,000 strong, and the Pa-ki or Eight Banners containing about 300,000 Manchu warrior-descendants. Since the Chino-Japanese War (1894–95), there is no effective Chinese fleet, although a few swift cruisers have been added to the Chen-Hai and the Kang-Chi which alone remained of the Pei-Yang squadron. The national revenue is derived from land and property taxes, customs, and excise, and in 1916 the budget for ordinary and extraordinary revenue and expenditure was $325,000,000. Prior to the Boxer troubles (1900–1901), the external debt amounted to about $270,000,000; to this was added in 1901 the indemnity of $375,000,000; estimated debt in 1914 $960,000,000.

China's authentic history begins with the Chow dynasty founded by Woo-wang, which lasted from 1100 B. C. to 258 B. C. Confucius was born under Ling-wang of this dynasty about 550 B. C. Chow-siang, the founder of the Tsin dynasty, from which China takes its name, overcame all rivals, and died in 251 B. C. Che-Hoang-ti, his great-grandson, was the first to assume the title of "Hoang" (emperor); during his reign, in 214 B. C., the great wall was begun as a protection against marauding Tartars.

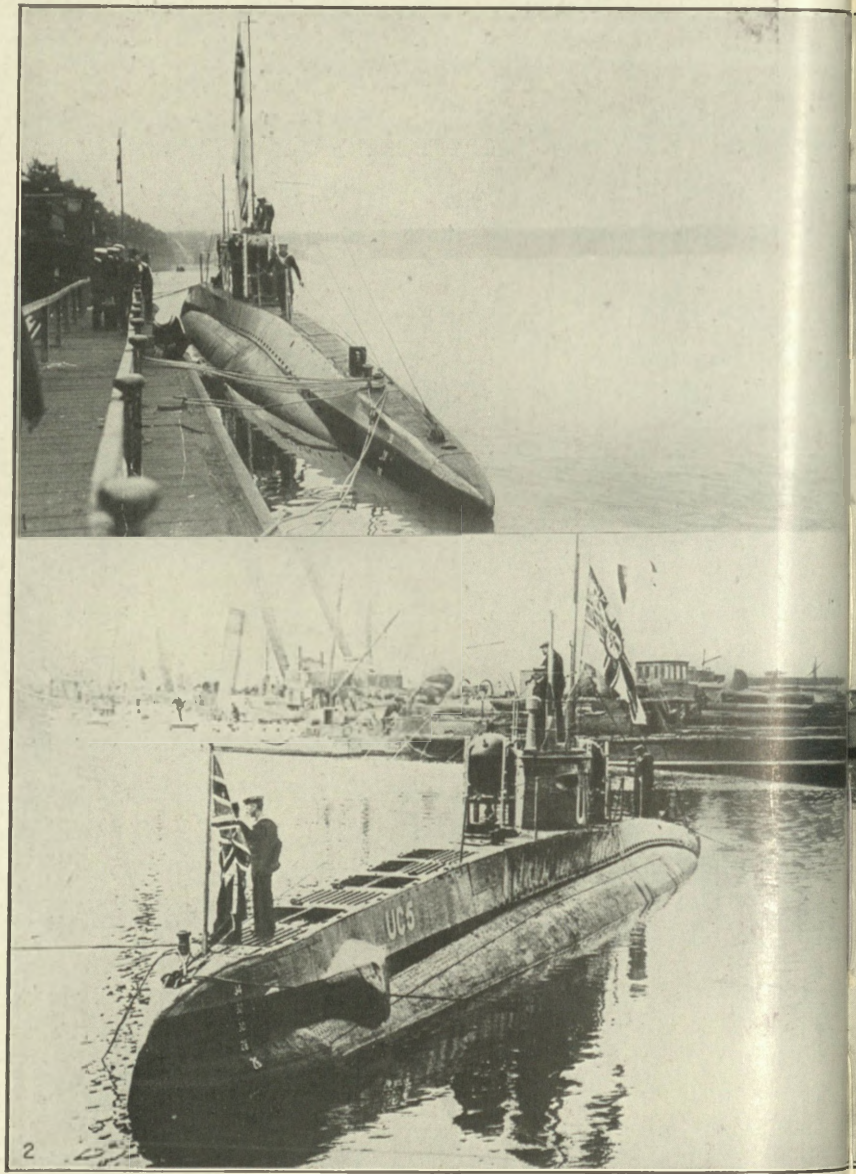
The Mongols under Genghis Khan and his son Ogdai conquered China in the 13th century, and in 1259 Kublai Khan, a nephew, ascended the throne and founded the Mongol dynasty. In the 13th century Marco Polo, the Venetian traveler, visited China, and published in Europe the earliest authentic account of the country. In 1368 the native Ming dynasty in the person of Hungwu gained the ascendency, which it retained until replaced in 1618 by the present Manchu dynasty, in the person of Tungchi. Diplomatic connections with Occidental nations did not commence until the British embassy of Lord Macartney arrived at Peking in 1792, and it was not until after the war with Great Britain in 1840, occasioned by the deplorable imposition of the opium traffic on China, that commercial treaties opened the country to foreign trade. The first treaty with the United States was negotiated by Caleb Cushing in 1844. War with Great Britain again occurred in 1856 over the Chinese seizure of a Hongkong vessel, France joining in, to secure better protection for missionaries and trade. From 1850 to 1865 southern China was disturbed by the Taiping Rebellion. In 1894–95 occurred the war with Japan over Korea, which resulted in a series of brilliant land and naval victories for Japan, and the payment of a large indemnity by China. In 1898 Russia and Germany acquired Chinese concessions of land. In 1900 occurred the Boxer troubles, when a belligerent section of the natives exasperated by the continued encroachments of the "foreign devils" and "barbarians," murdered the German ambassador, and besieged the foreign legations in Peking for two months until relieved by the allied forces of Russia, Germany, Great Britain, the United States, and Japan.

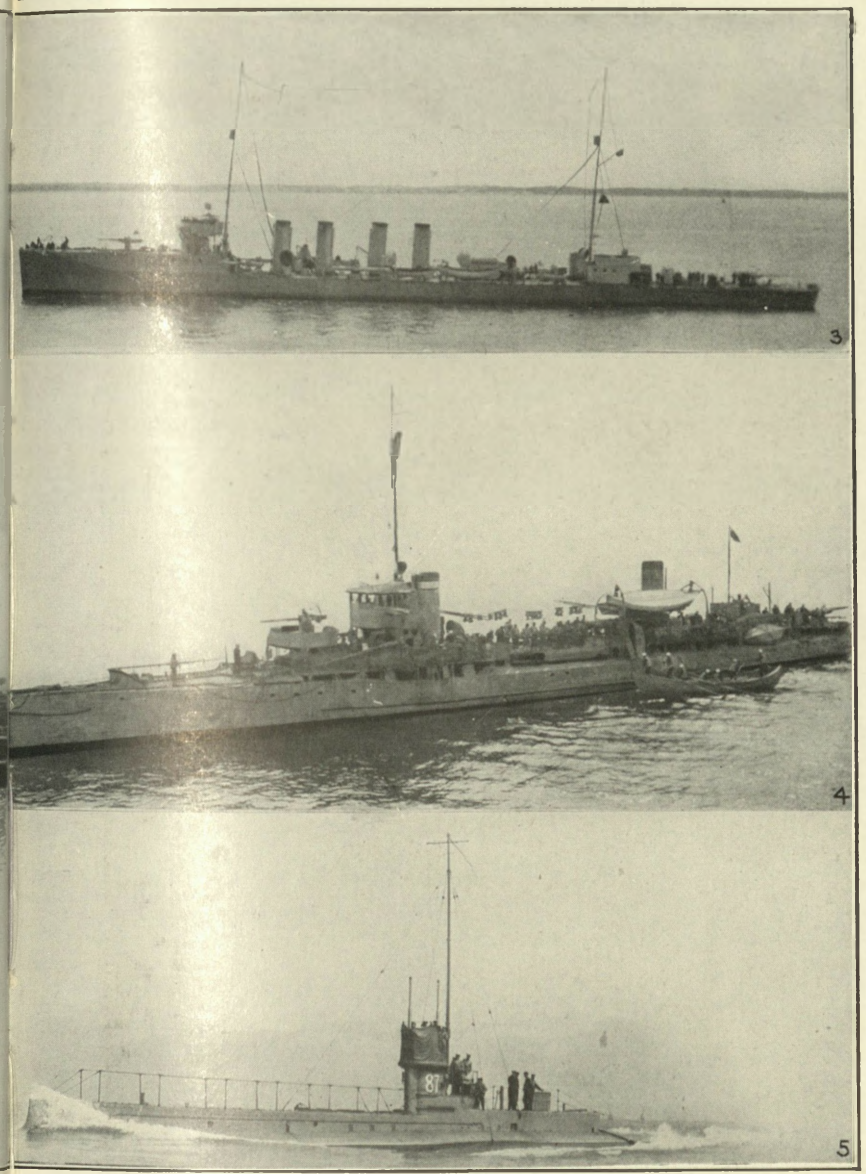
The Emperor Kuang-Hsu died Nov. 9, 1908; his two-year old nephew, P'u-yi, succeeded nominally, but the Empress Dowager was the actual ruler till her death, Nov. 15, 1908. On Feb. 12, 1912, the oldest of monarchies became a republic, the young Emperor abdicating the same day. In 1915 an attempt was made to restore the monarchy, but the act of eight provinces declaring their independence checked the movement. On July 2, 1917, the monarchy was restored under the boy Emperor; and on Aug. 10 following all the foreign ministers in Pekin recognized the restoration of the republic under President Feng-Kwo-Chang. China severed diplomatic relations with Germany, March 22, 1917, and



A GARDEN IN PEKING, CHINA

# MODERN TYPES OF DESTROYERS AND SUBMARINES

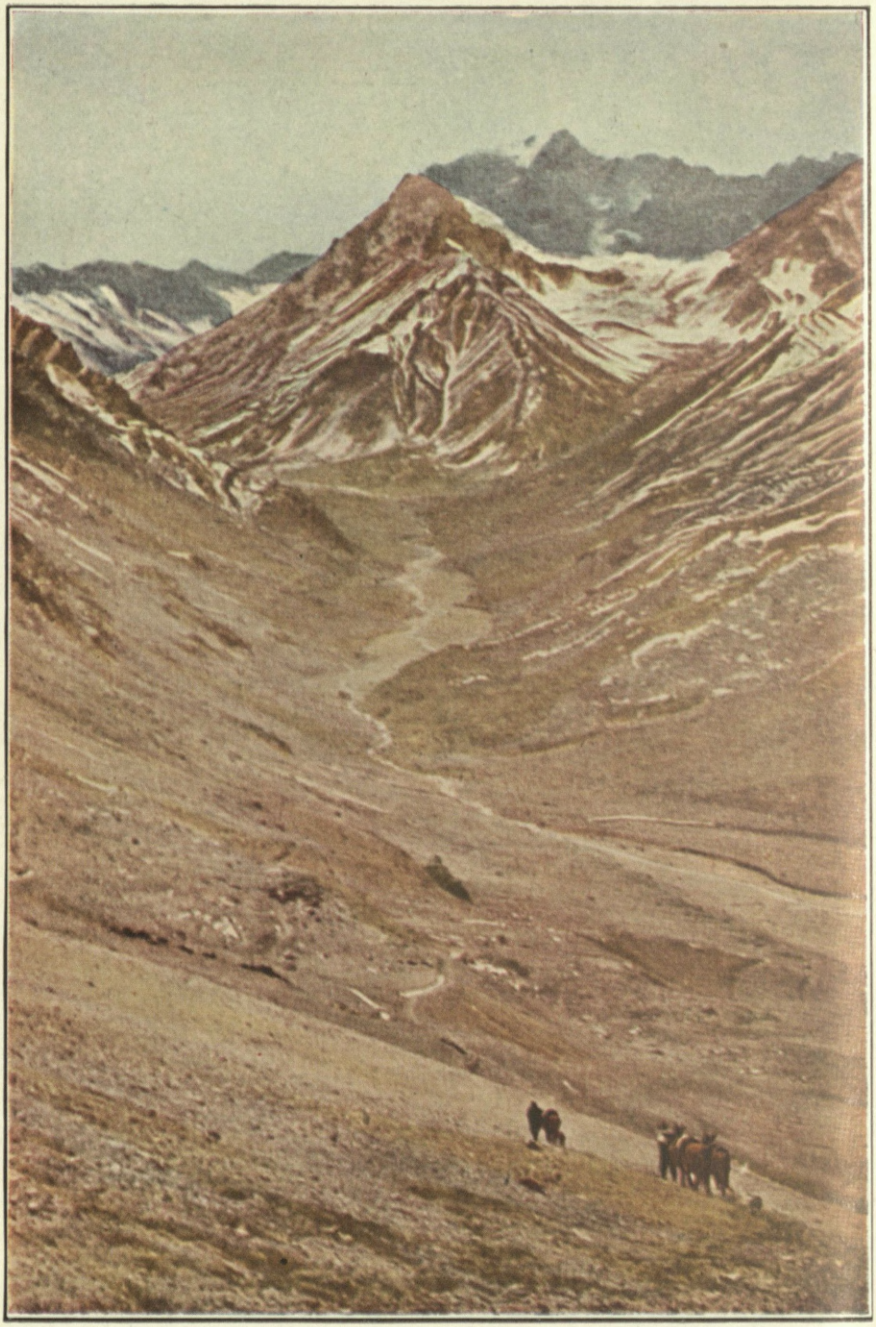



1—British U-Boat on the Thames.
2—German mine-laying submarine captured by British.

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3—Latest type U. S. destroyer.
4—French torpedo boat destroyer.
5—Latest type of British submarine.



THE OLD TRANSANDINO TRAIL—ARGENTINA TO CHILE

declared war on Germany and Austria-Hungary, Aug. 14 following.

**Chinchilla,** a genus of South America herbivorous rodents very closely allied to the rabbit, which they resemble in the general shape of the body,



CHINCHILLA.

in the limbs being longer behind than before, and by the nature of the fur, which is more woolly than silky.

**Chinchon,** a town of Spain, 25 miles S. E. of Madrid, named for the Countess of Chinchon, wife of the Governor of Peru in 1638. Peruvian bark was named "Chinchona," now habitually misspelled "Cinchona."

**Chinese-fire,** a pyrotechnic composition, consisting of gunpowder, 16; niter, 8; charcoal, 3; sulphur, 3; cast-iron borings (small), 10.

**Chinese Lantern,** a lantern made of thin paper, usually variously colored and much used in illuminations.

**Chinese Swallows' Nests,** curious productions, which sell at a high price in China, though they have no special points of recommendation beyond many other gelatinous ingredients in soups. They are formed of a secretion from the mouth of the bird itself.

**Chinese Tartary,** an old name of Turkestan.

**Ching,** a Chinese prince; born in Peking about 1840. He was related to the Chinese imperial family. He was at the head of the Tsung-li-Yamen, but was deposed in 1900 for his efforts to protect the legations in Peking, during which he attacked the Boxers.

**Ching-hai,** or **Chin-hai,** a seaport of China, in the province of Cheh-Chiang (Cheh-Kiang), 9 miles from the treaty port of Ning-Po.

**Chin-Kiang,** or **Chin-Chiang,** a city of China in the province of Kiang-Su (or Chiang-Su), about 490 miles S. of Tien-Tsin. Chin-Kiang became a treaty port in 1861. Pop. (Est.) 90,000.

**Chinon,** an antique town in the French department of Indre-et-Loire. Crowning a lofty rock are the ruins of its vast old castle, the "French Windsor" of the Plantagenets, the death-place of Henry II.; and later the residence of several French sovereigns, where, in 1429, Joan of Arc revealed her mission to the Dauphin.

**Chinooks,** a tribe of Indians, now nearly extinct, on the Columbia river, or in Oregon.

**Chinook Wind,** a strong, dry west or south wind in Wyoming and Montana, which descends from the mountains, like the hot winds of Kansas, and the Föhn winds of Switzerland.

**Chintz,** a cotton cloth gaily printed with designs of flowers, etc., in five or six different colors. It was a favorite in the time of Queen Anne, long before cotton prints became cheap. The name has since been applied to goods lacking the graceful and artistic character of the genuine article.

**Chios,** (now called by the natives Chio, Italianized into Scio), one of the most beautiful and fertile islands in the Ægean sea, belonging to Greece, 7 miles off the coast of Asia Minor, at the entrance to the Gulf of Smyrna. It has an area of 320 square miles, and a population (1913) of 73,830, almost all Greeks. Earthquakes are, however, not rare, and one in 1881 caused the death of 3,558 persons, and the destruction of property to the value of over $15,000,000.

**Chipmunk,** a small animal much like a squirrel, known as the striped squirrel.

**Chippendale, Thomas,** an English cabinet-maker; went to London from Worcestershire before 1750. The style of furniture named from him was less heavy and severe than that of his successors, and was rather elaborate, delicate and baroque, with classical tendencies.

**Chippeways,** or **Ojibways,** a tribe of North American Indians in the United States and Canada. They are distributed in bands round both sides of the basin of Lake Superior,

where they once owned vast tracts. They are of the Algonquin stock, tall, active and well formed, subsist chiefly by hunting and fishing and number about 18,000.

**Chiquimula,** a small town in the E. of Guatemala, which gives name to a province and to the Isthmus of Chiquimula.

**Chiquinquira,** the largest town in the department of Boyaca, Colombia, was an Indian place of pilgrimage before the conquest, and the Spaniards having found here a miraculous image of the Virgin, the church where this is preserved is now visited by some 60,000 pilgrims annually.

**Chiquitos,** or **Naquinoneis** ("men"), an Indian tribe of Bolivia, dwelling between the Paraguay and the Madeira.

**Chiriqui,** the westernmost administrative division of the Republic of Panama, adjoining Costa Rica; area, 6,500 square miles; pop. 43,000. It is well wooded, and has rich pasturage, especially on the Atlantic coast, where the climate is very moist.

**Chiron,** a centaur, half man and half horse, son of Philyra and Saturn, was famous for his knowledge of music, medicine and shooting. He taught mankind the use of plants and medicinal herbs, and he instructed in all the polite arts, the greatest heroes of his age, Achilles, Æsculapius, Hercules, etc.

**Chisholm, William Wallace,** Republican politician and Unionist, born in Morgan County, Ga., 1830; was fatally shot by a mob in 1877.

**Chisleu,** the ninth month of the Jewish year, commencing with the new moon in December or the latter part of November. The modern Jews fast on the sixth day of this month.

**Chitral,** a small mountain State in the upper basin of the Kashkar or Kunar, a tributary of the Kabul river, and bordering on Kashmir and Kafiristan, is 5,200 feet above sea-level. The people are Moslems, but mostly speak a language close akin to that of their pagan neighbors in Kafiristan.

**Chittenden, Russel Henry,** an American educator; born in New Haven, Conn., Feb. 18, 1856. He became Professor of Physiological Chemistry at Yale in 1882, and since 1896 has been director of the Sheffield Scientific School.

**Chittenden, Thomas,** an American colonial and State governor; born in East Guilford, Conn., Jan. 6, 1730. He was one of the pioneers of Vermont, and acquired a fortune from his lands. In 1778 he became governor of Vermont, before its formal separation from New York was recognized. During the Revolutionary War the British and the Continental Congress received overtures from him, his terms being recognition of Vermont's statehood. He retired from public life in 1796 and died in Williston, Vt., Aug. 24, 1797.

**Chittim,** or **Kittim,** in the Old Testament, is usually identified with Cyprus.

**Chitty, Joseph,** an English lawyer and legal writer; born in 1776. He achieved eminence as a barrister in London, but his celebrity rests mainly upon his legal works. He died in London, Feb. 17, 1843.

**Chiusi,** a town of Central Italy, 102 miles N. N. W. of Rome. It is in connection with the discovery of Etruscan antiquities that the place is chiefly heard of. During the 19th century immense quantities of these remains were found in the neighborhood in the grottoes that served the ancient Etruscans as tombs.

**Chivalry,** the uses and customs pertaining to the order of knighthood. Chivalry declined and fell with the feudal system, of which it was a normal growth. The institution of the military orders, the Knights Templar, the Knights of St. John and the Teutonic Knights was an interesting development of chivalry.

**Chladni, Ernst Florens Freidrich,** a German physicist; born in Wittenberg, Nov. 30, 1756. Died in Breslau, April 4, 1827.

**Chlopicki, Joseph,** a Polish general; born in Galicia, March 24, 1772. He served under Kosciuszko during the first revolt of the Poles (1794), and then engaged in Napoleon's service, under whom he took part in the battles of Eylau, Friedland, Smolensk and Moskowa. On the outbreak of the Polish revolution of 1830 he was elected Dictator, but soon resigned that office, fought at Grochow and Wavre, and after the cessation of hostilities

retired into private life. He died in Cracow, Sept. 30, 1854.

**Chloral,** produced by the action of chlorine on alcohol, since the discovery of its anæsthetic effects by Dr. O. Liebrich in 1869, is extensively employed medicinally in the form of chloral hydrate.

**Chlorine,** a gas. From its wide affinities and great activity in the free state, chlorine is one of the most useful and powerful instruments with which the chemist deals. By it such metals as platinum and gold are attacked and made soluble in water, while its power over organic substances is very great.

Chlorine is largely consumed in the arts. Thus it is used in the manufacture of potassic chlorate for making lucifer matches; in the conversion of the yellow to the red prussiate of potash, in the preparation of chloride of sulphur for the vulcanizing process, and above all as a bleaching and disinfecting agent.

**Chloroform,** is formed by the action of the sun's rays on a mixture of chlorine and marsh gas; also by the action of caustic potash on chloral or chloracetic acid, or by the action of nascent hydrogen on tetrachloride of carbon. It is prepared on a large scale by distilling water and alcohol with bleaching powder. Chloroform is a colorless, mobile, heavy, ethereal liquid.

The vapor of chloroform, when inhaled for some time, produces a temporary insensibility to pain. Inhaled in small doses it produces pleasurable inebriation, followed by drowsiness; in larger doses it causes loss of voluntary motion, suspension of mental faculties, with slight contraction of the muscles and rigidity of the limbs; then if the inhalation is continued a complete relaxation of the voluntary muscles takes place, but if carried too far it causes dangerous symptoms of apnœa or of syncope, and the patient must be restored by artificial respiration.

**Chlorosis,** one of the most formidable diseases to which plants are liable, and often admitting of no remedy. Many forms of the disease exist, of which those of clover, onions, cucumbers and melons are best known.

In medical practice an affection in which the skin of the body, and especially that of the face, assumes a peculiar greenish cast, and hence is popularly known as green-sickness.

**Choate, Joseph Hodges,** an American diplomatist; born in Salem, Mass., Jan. 24, 1832. He is a descendant of John Choate, who came from England in 1640. He was graduated at Harvard College in 1852; admitted to the bar in Boston in 1855; removed in 1856 to New York, where he became a partner in the law firm of Evarts, Choate & Beaman. His ability as a lawyer and public speaker gave him a reputation seldom equaled among leaders of the New York bar. In 1899–1905 he was Ambassador to Great Britain. He died May 14, 1917.

**Choate, Rufus,** an American lawyer; born in Essex, Mass., Oct. 1, 1799; was graduated at Dartmouth College in 1819; taught there for one year; was admitted to the bar and began practice in Danvers in 1823; removed to Salem in 1828; was a member of Congress in 1830–1834, resigning in the latter year; removed to Boston; was successor of Daniel Webster in the United States Senate in 1841–1845; returned to Boston in the latter year and resumed practice. He traveled in Europe in 1850; was a delegate to the Whig National Convention in Baltimore in 1852. After Webster's death Mr. Choate was acknowledged the leader of the Massachusetts bar. He made many political speeches, the most brilliant, while a United States Senator, including those on the Oregon Boundary, the Tariff, the Fiscal Bank Bill, the Smithsonian Institution, and the Annexation of Texas. He gave much attention to literary studies. He died in Halifax, N. S., July 13, 1858.

**Chocolate,** a preparation of the seeds of Theobroma Cacao, made by grinding the seeds mixed with water to a very fine paste. It was introduced from America to Europe by the Spaniards. It is highly nutritious, containing a large proportion of nitrogenous flesh-forming material. On this account it is used as portable food by many mountaineers. In the solid form, mixed with much sugar, cream, and various confections, Chocolate is largely used as a sweetmeat, and is introduced in pastry.

**Choctaws,** an Indian tribe that now occupies a reservation in the S. E. portion of Oklahoma; area, 10,450 square miles. The chief and legislature are chosen by popular vote. Grain, cotton and fruit are raised by the tribe, which maintains schools and orphan homes. They number about 18,456. A number of denominations maintain mission schools. The tribe's trust funds aggregate over $1,000,000. There are numerous Choctaw physicians, lawyers and clergymen, but the tribe is not as civilized as some others.

**Choir,** an organized body of singers in church services. In ecclesiastical architecture the choir is the part of the building in a cathedral or collegiate chapel set apart for the performance of the ordinary daily service.

**Choke-cherry,** a species of cherry, so called from the astringent nature of the fruit; it is indigenous to North America, the true choke-cherry being the Prunus Virginiana; the fruit is small and hangs in racemes.

**Choke-damp,** the name given by miners to the fire-damp resulting from an explosion of gas in mines.

**Choking,** the effect caused by a morsel of food, liquid, or other obstruction, passing into the larnyx or upper opening of the windpipe, instead of the gullett. It results generally from a breath being suddenly drawn in coughing or laughing, while food or fluid is in the mouth; and a violent fit of coughing follows till the offending substance is expelled from the windpipe. Sometimes, however, a larger mass is drawn into the opening of the windpipe, completely blocking it and arresting respiration altogether. This condition is one of extreme danger and the sufferer, if not at once relieved, will certainly and quickly die of suffocation.

**Cholera,** a Greek term now universally employed in medicine as indicating one of two or three forms of disease, characterized by vomiting and purging, followed by great prostration of strength, amounting in severe cases to fatal collapse. The milder forms of Cholera occur almost every summer and autumn, even in temperate latitudes, while the more devastating and fatal forms of the disease are generally supposed to originate only in tropical countries. The very fatal forms of the disease are commonly called Asiatic, Oriental, or Epidemic Cholera.

What is called Cholera morbus is a bilious disease, long known in most countries, and is characterized by copious vomiting and purging, with violent griping, cramps of the muscles of the abdomen and lower extremities, and great depression of strength. It is the most prevalent at the end of summer or the beginning of autumn. Cholera infantum (infants' cholera) is the name sometimes given to a severe and dangerous diarrhœa to which infants are liable in hot climates or in the hot season.

**Cholos,** in Peru, the name for those who are partly of white, partly of Indian parentage, the most numerous class of the community.

**Cholula,** a decayed town of the Mexican State of Puebla. Cortes found in it 40,000 houses and 400 temples, including the great Teocalli. Now the place only contains 9,000 inhabitants. It was a great center of the Aztec religion.

**Chonos Archipelago,** a group of islands lying off the W. coast of Patagonia. Two are large, but they are all barren and scantily inhabited.

**Chopin, Frédéric Francois,** a Russian pianist and musical composer, of French extraction; born in Warsaw, March 1, 1809; died Oct. 17, 1894 in Paris, where the best part of his life was spent. His characteristic pianoforte compositions include Nocturnes, Polonaises, Valses, and Preludes.

**Chop-sticks,** the Chinese substitute for a knife, fork, and spoon at meals, consisting of two smooth sticks of bamboo, wood, or ivory.

**Chorale,** or **Choral,** the psalm or hymn tune of the German Protestant churches.

**Choral Music,** vocal music in parts; music written or arranged for a choir or chorus, and including oratorios, cantatas, masses, anthems, etc.

**Choral Service,** a service with intoned responses, and the use of music throughout wherever it is authorized.

**Chorazin,** one of the cities in which Christ's mighty works were done, but

named only in his denunciation (Matt. xi: 21; Luke x: 13). It was known to St. Jerome, who describes it as on the shore of the lake, 2 miles from Capernaum.

**Chord,** in music, the simultaneous and harmonious union of different sounds, at first intuitively recognized by the ear, and afterwards reduced to a science by the invention of the laws or rules of harmony.

**Chorea,** St. Vitus' dance, a disorder of the nervous system characterized by a peculiar convulsive and irregular action of the voluntary muscles. The name is derived from St. Vitus, who is said to have had the power of curing persons afflicted with that disease.

**Chorus,** originally an ancient Greek term for a troop of singers and dancers, intended to heighten the pomp and solemnity of festivals.

**Chosen,** new name given by Japan to Korea on annexation of the latter in 1910.

**Chosroes I.,** or **Khosrou the Great,** King of Persia, succeeded Cabades, A. D. 551. He was fierce and cruel, but possessed many good qualities, and encouraged the arts and sciences. He concluded a peace with the Romans, but afterward invaded their territories, but was defeated by Tiberius. He died in 579.

**Chouans,** the name popularly given during the Vendean civil war in France, to the peasants of Brittany and Lower Maine.

**Chouteau, Auguste,** an American pioneer; born in New Orleans, La., in 1739. He was from his early youth a fur trader, and with his brother Pierre he founded the city of St. Louis in 1764. He died in St. Louis, Feb. 24, 1829.

**Chouteau, Pierre,** an American pioneer; born in New Orleans, in 1749. With his brother Auguste he set out in 1763, joining a government expedition. He stopped in the heart of an unsettled country and founded, with his brother, the city of St. Louis. He died in St. Louis, July 9, 1849.

**Chouteau, Pierre, Jr.,** an American capitalist, son of the preceding; born in St. Louis, Jan. 19, 1789. He worked for his father and began trading in fur early in life. After establishing posts for the sale of skins throughout the trans-Mississippi region he purchased the fur-trading interests of John Jacob Astor. He died in St. Louis, Sept. 8, 1865.

**Chrism,** the name given to the oil consecrated on Holy Thursday, in the Roman Catholic and Greek Churches, and used in baptism, confirmation, ordination, and extreme unction.

**Christ,** the name given as a title of eminence to Jesus our Saviour, whom, in the words of St. Peter (Acts x: 38), "God anointed," as king, priest, and prophet, "with the Holy Ghost and with power." The two names, Jesus Christ, are not analogous to a modern Christian name and surname; in reality the great Being so designated had but one personal appellation—Jesus; Christ being added by Jesus himself (John 4: 26) to designate His office, function, or mission.

**Christ, Disciples of,** a denomination of Christians in the United States from which has sprung since 1900 a body known as the CHURCHES OF CHRIST. In September, 1809, Thomas Campbell, a Scotch minister of the seceders' branch of the Presbyterian Church, then living in Western Pennsylvania, issued a "Declaration and Address" deploring the divided state of the Church, and urging as the only remedy a complete restoration of apostolic Christianity and the rejection of all human creeds and confessions of faith. The Christian Association of Washington, Pa., was formed for the purpose of promoting the principles set forth in this "declaration." It was not the intention of the Campbellites to form a distinct religious body, but to effect the proposed reforms in the churches. The Disciples maintained that having accepted the Bible as their only rule of faith and practice, and the only divine basis for the union of all Christians, they were led to reject infant baptism and adopt believers' immersion only. They observe the Lord's Supper each-first day of the week, and heartily and practically accept and exalt the doctrine of the divinity of Christ. The two denominations have 8,621 ministers, 11,143 churches, and 1,522,821 communicants, besides sev-

eral universities and colleges of high rank, and a number of religious publications.

**Christadelphians,** a religious body who believe that God will raise all who love Him to an endless life in this world (but that those who do not shall absolutely perish in death); that Christ is the Son of God, inheriting moral perfection from the Deity, our human nature from His mother; and that there is no personal devil. In the United States they had in 1906, 70 organizations with 1,412 members, scattered over 25 States and Territories. Their founder was Dr. John Thomas, an Englishman, who came to the United States in 1844.

**Christ Church, College of,** a notable institution in Oxford, England.

**Christian II.,** King of Denmark, Norway, and Sweden; son of Hans and grandson of Christian I., King of Denmark, etc.; born July 2, 1480. Upon rebellion breaking out in Sweden, Christian sent an army commanded by Otto Krumpen, who defeated the Swedes in the decisive battle of Bogesund (Ulrikehamn), Jan. 19, 1520, in which Steen Sture the administrator was killed. Stockholm, under the command of the widow of Sture, stood a siege of four months, during which period the rest of the country was subdued, and on Nov. 4, Christian was crowned King of Sweden. He was one of the most cruel monsters of history, and is known as "The Nero of the North." Sweden revolted under Gustavus Vasa, who expelled the Danish garrisons and became king of Sweden, and founder of the illustrious house of Vasa. Christian was dethroned in Denmark, and died in 1559.

**Christian IX.** (of Schleswig-Holstein-Sonderburg-Glucksburg); born in 1818, succeeded Frederick VII. as King of Denmark, in 1863. The Kings of Greece, of Norway, Queen of Great Britain, Dowager Czarina of Russia, were his children. He died Jan. 29, 1906.

**Christian X.,** King of Denmark, born Sept. 26, 1870, son of King Frederik VIII. and Queen Louisa; married Princess Alexandrine of Mecklenburg, April 26, 1898; succeeded to the throne, May 14, 1912; heir apparent, Prince Christian Frederik, born March 11, 1899.

**Christian Church, The,** consists of those who have been baptized in the name of Christ and who accept His doctrines and live in harmony with them. The Church, in its broadest sense, consists of true believers in all ages; but the Christian Church was established through the life and work of Christ Himself, and consists only of His followers. Its first great increase was at Pentecost, where 3,000 souls were converted; shortly afterward 5,000 were added to the Church. Stephen was the first to suffer martyrdom. Paul made three great missionary tours, and the result was the organic unity of the Church in its first period.

Christian Churches in America.—The colonization of North America sprang from religious motives. The colonists sought freedom here because of the oppressions at home. Periods of American Church History: (1) From 1607–1660, revival and progress. (2) 1660–1720, trial, disputes with Great Britain, religious decline. (3) From 1720–1750, great revivals. (4) From 1750–1783, political agitation, freedom from British rule. (5) From 1783 to the present, extensive revivals, separation of Church and State, abolition of slavery, evangelization. The Protestant Episcopal Church was founded by the James River Colony (1607); its first General Convention was in 1785; it ratified the Thirty-nine Articles in 1832. The Puritan Pilgrims landed at Plymouth in 1620, and began the development of Congregationalism. The Cambridge Platform was established in 1648. The Reformed (Dutch) Church was established in 1628 in New Amsterdam (New York). The first independent organization was in 1771. The Baptists began in Providence, R. I., in 1639, through Roger Williams. The Reformed (German) Church was organized in 1741. The Lutherans were established first in New York in 1669; the first Synod was held in 1748. The Presbyterians were organized at the close of the 17th century. The first Presbytery was established in Philadelphia in 1706, and the first General Assembly in 1789. The first Methodist Society in the United States was

established in New York in 1766, and the first Conference was held in Philadelphia in 1771. The Reformed Episcopal Church was organized in New York in 1873, under Bishop Cummins. The Roman Catholic Church in the United States was first established in Maryland through immigration in 1632. The Episcopal See of Baltimore was established in 1789. For statistics of the American Churches see the separate articles.

**Christiancy, Isaac Peckham,** an American editor and diplomatist; born in Johnstown (now Bleeker), N. Y., March 12, 1812. He was one of the founders of the Republican party. In 1875 he was chosen United States Senator from Michigan, and in 1879 became Minister to Peru. He died in Lansing, Mich., Sept. 8, 1890.

**Christian Endeavor, Young People's Society of,** a society distinctly religious in all its features; organized Feb. 2, 1881, in Williston Church, Portland, Me., by the Rev. Francis E. Clark, D. D. From one small association it has expanded into over 72,000 societies, in all parts of the world, with an aggregate membership of over 3,500,000. In addition to the main organizations in the United States it has been found necessary to form branches, among which are the Juniors, organized March 27, 1884, at Tabor, Ia., by the Rev. J. W. Cowan and Miss Belle Smith; the Intermediate, organized by the Rev. A. Z. Conrad, of Worcester, Mass.; and the Mothers', suggested by Mrs. Amanda B. Fellows, of Chicago, and organized in April, 1893, at Topeka, Kan., by Mr. F. C. Barton. The first Christian Endeavor Society in England was organized in 1887, and was followed by similar ones in other countries, and the constitution has been printed in over 30 different languages. The movement is not a denominational one. Any society belonging to an evangelical Church, which adopts the leading principles as set forth in the constitution, including the prayer-meeting pledge, and which guarantees these principles by the name Christian Endeavor either alone or in connection with a denominational name is admitted to all the privileges of the organization.

The distinctive features in the Christian Endeavor movement are its work among the young people, leading them to consecrate their lives to the active service of God; the weekly prayer-meetings, which each member takes a solemn pledge to attend regularly (unless unavoidably detained), and to take part in; and the reconsecration meetings held once a month, at which special efforts are made to see if each one has been faithful to his pledges.

**Christian Era,** the era or epoch introduced by the birth of Christ. It was calculated back about the year 532, by a monk, Dionysius Exiguus. It is thought that he fixed the advent too late by four years, and that consequently Jesus was born, if the contradiction in terms can be permitted, in B. C. 4.

**Christiania,** a city and port, the capital of Norway, at the head of the long narrow inlet called Christiania Fjord, about 60 miles from the open sea. The houses are mostly of brick and stone, generally plain buildings, devoid of architectural pretension. Important public buildings are the royal palace, the house of representatives or Storthing, the governor's palace, and the cathedral. The manufactures of the city consist of woolen cloth, ironware, tobacco, paper, leather, soap, spirits, glass, etc., and there are extensive breweries. The exports are principally timber and iron. The environs are exceedingly beautiful. Pop. (1920) 258,520.

**Christianity,** the religion of which Jesus Christ is not only the founder, but also the object, since it is by Him and in Him that man recovers his union with God by an effective reconciliation.

**Christians,** a religious denomination, founded in 1810 from threefold sources, Methodist, Baptist, and Presbyterian, growing out of secessions from each of those bodies. The denomination was first called "The Independent Baptist Church." The members discard creeds and adhere closely to Biblical terminology in stating their views. The first General Convention was held in 1819. In 1854 resolutions in regard to slavery were adopted which were offensive to

the Southern members, who withdrew, and formed a Southern Convention.

**Christian Science,** a system of religion, the practice of which consists in the overcoming of sin and the healing of disease. The discoverer and founder of Christian Science was the Rev. MARY BAKER GLOVER EDDY (*q.v.*), of Concord, N. H. It was established by her in 1866, and has had a remarkable development. It is based upon the Bible and set forth in a work by Mrs. Eddy, entitled "Science and Health, with Key to the Scriptures," first published in 1875. "Science and Health," pages 114 and 358, states that "Christian Science, understood, coincides with the Scriptures and sustains logically and demonstratively every point it presents." "Christian Science explains all cause and effect as mental, not physical. It shows the scientific relation of man to God." Christian Science affirms the spiritual personality of God, as opposed to all material theories. God is held to be the divine principle of all being, matter having no actual existence. The spiritual universe manifests but one real mind, God, of whom man is the idea or reflection. Christian Science is then at once the science of God, of man, and of life. God is absolute good. He has not created nor consented to any form of evil, sickness, or death; His laws provide for life only. Sin, sickness and death are abnormal conditions of mortal mind and have no existence outside of carnal thought. Disease is a belief, not a reality. When man fully awakes to the fact that bodily ills and mortality are the results of fear, ignorance and sin, he will be in a position to deal with and master disease on a true scientific basis. Christian Science is thus not only a system of faith, but a method of healing; disease being in its teaching not an actual fact, but a distorted belief, while the cure begins with discarding a belief in the reality of disease. In attestation of its teachings, it points to cures of so-called incurable diseases, such as cancer, consumption, locomotor ataxia, etc., without the aid of material remedies, but through strictly metaphysical methods. Mrs. Eddy says in her book, "Retrospection in Introspection," page 41: "I claim for healing scientifically the following advantages: 1. It does away with all material medicines and recognizes the antidote for all sickness, as well as sin, in the Immortal mind; and mortal mind as the source of all the ills that befall mortals. 2. It is more effectual than drugs, and cures when they fail or only relieve, thus proving the superiority of metaphysics over physics. 3. A person healed by Christian Science is not only healed of his disease, but is advanced morally and spiritually. The mortal body being but the objective state of the mortal mind, this mind must be renovated to improve the body."

The services are uniform, consisting of meetings on Sundays and on Wednesday evenings. No sermons are preached by a personal pastor, but a sermon made up of selections from the Bible and "Science and Health, with a Key to the Scriptures," written by Mrs. Eddy, is read by two readers, called the first and second readers, generally a man and a woman. At the Wednesday evening meetings testimonies of healing and remarks on Christian Science are given by the members of the congregation.

The absence of creed and dogma in the Christian Science Church, its freedom from materialism, mysticism, and superstition, also the simplicity, uniformity, and impersonality of its form of worship and organization, are among the distinguishing features which characterize this modern religious movement. Hypnotism, mesmerism, spiritualism, theosophy, faith-cure and kindred systems are classed by Christian Science as foreign to their form of worship. Those practising these beliefs are denied admission to the Christian Science Church.

The rapid growth of this religion, of which we have given only a brief outline, is shown by the increase in the number of its adherents, it having more than 1,000 churches and societies in the United States and foreign lands, while its followers and sympathizers in this country are estimated to be over a million. The First Church of Christ, Scientist, erected at Boston, in 1894, has the enormous membership, resident and non-resident, of over 40,000, and the membership of the branch churches is about the same, many of them being also members of the Mother Church. All Christian Science churches, other

than the Mother Church in Boston, are branches of that church. A spacious auditorium with a seating capacity of 5,000 and built at a cost approaching $2,000,000, has been added to the church at Boston, and was dedicated in June, 1906, 30,000 persons being present on that occasion. Magnificent and costly church buildings have been erected in New York City, Philadelphia, Chicago and many other cities, including a beautiful granite edifice in Concord, N. H., the gift of Mrs. Eddy, whose home was for years in that city. She now resides in Brookline (Newton), Mass., a suburb of Boston. There are at present many thousands of practitioners of Christian Science healing in the United States. Branch churches exist in many foreign countries, including Great Britain and Ireland, Canada, Mexico, the Bahamas, British West Indies, Cuba, the Hawaiian Islands, Philippine Islands, Sandwich Islands, France, Germany, Norway, Switzerland, Italy, Australia, India, China, and South Africa.

Besides the text-book of Christian Science, Mrs. Eddy's principal works are: "People's Idea of God" (1886); "Christian Healing" (1886); "Unity of Good" (1887); "Retrospection and Introspection" (1891); "No and Yes" (1891); "Christ and Christmas" (1893); "Pulpit and Press" (1895); "Church Manual" (1895); "Miscellaneous Writings" (1897); "Christian Science *vs.* Pantheism" (1898); "Messages to the Mother Church" (1900-1901-1902).

The Christian Science Publishing Society publishes "The Christian Science Journal" (monthly); "Der Herold Der Christian Science" (monthly—German); "The Christian Science Sentinel" (weekly); "The Christian Science Monitor" (a daily newspaper); and numerous pamphlets and tracts in English, French and German.

**Christian University,** a Co-educational institution in Canton, Mo.

**Christie, William Henry Mahoney,** an English astronomer; born in Woolwich, Oct. 1, 1845. On the retirement of Airy as Astronomer Royal in 1881, Christie was appointed his successor, a position which he still holds. He is best known for his spectroscopic work with the Greenwich Equatorial, especially that relating to the motion of stars in the line of sight.

**Christina,** Queen of Sweden; born in 1626. She was the daughter of the great Gustavus Adolphus, and on her father's death, in 1632, was crowned queen, being then only six years of age, with the five principal ministers of state appointed by Parliament her guardians. Having resolved to abandon Protestantism, she, in 1654, in an assembly of the states at Upsala, abdicated her crown, reserving to herself an annual income of $200,000. She forthwith left Sweden, and traveled in male attire to Brussels, where she made a secret profession of the Roman Catholic faith. At Innsbruck, she made a more formal and public avowal of it. She next rode to Rome, where the reception accorded to her was an ovation. There she did homage to Pope Alexander VII., and received the honor of his name, in addition to her own, being thenceforward styled Christina Alexandra. In 1656 she went to France, where she lived principally at Fontainebleau, Compiègne, and Paris. During the year following, she excited universal horror and disgust by the cruel assassination of her master of the horse, the Marquis Monaldeschi. In 1660 her successor on the Swedish throne died, and she thereupon repaired to Sweden to claim it for herself; but her conversion to the Roman Catholic Church proved a bar to her resumption of the crown, and she was compelled to return to Rome, where she died in 1689.

**Christison, Sir Robert,** a Scotch physician, born in Edinburgh, July 18, 1797, attained eminence as a toxicologist, professor of medical jurisprudence, and author. He died Jan. 27, 1882.

**Christmas,** the festival of the Nativity of Christ, observed by the Christian Church yearly on the 25th of December, commonly accepted as the date of the birth of Christ.

**Christmas Ship,** popular name given to the United States naval auxiliary vessel *Jason*, which was sent to Europe in November, 1914, laden with over 6,000,000 packages of clothing, toys, and other appropriate ar-

ticles from all parts of the country, contributed for Christmas gifts for the children of war sufferers.

**Christophe, Henri,** a King of Haiti, was an African slave; born in Grenada, West Indies, in 1767, who received his freedom as a reward of faithful service. On the outbreak of the negro insurrection in St. Domingo, 1801, he became one of its leaders. After the deposition of Toussaint, Christophe served under his successor, Dessalines. In 1811 Christophe obtained undisputed possession of a portion of the island with the title of King of Haiti. He committed suicide in 1820.

**Christopher's, St.** (commonly called St. Kitt's), a British island in the West Indies, one of the Leeward Islands, 23 miles in length, and in general about 5 in breadth; area, 65 square miles. The interior consists of many rugged precipices and barren mountains. The chief town, a seaport with open roadstead, is Basse-Terre. The island has a legislature of its own, with an executive subordinate to the governor of the Leeward Islands. It was discovered by Columbus in 1493. Pop. (Est.) 30,000.

**Christy, Charles,** an American minstrel; born in New York city, in 1828. He was an actor from boyhood, singing on the minstrel stage. He died in Kansas City, Mo., Feb. 13, 1897.

**Chromium,** an element discovered in the native chromate of lead of Siberia. It was afterward found combined with iron. It is the coloring matter of the emerald and beryl, and has received its name from the brilliant colors of its compounds.

**Chromium (or Chrome) Steel,** steel in which the carbon is replaced by the metal chromium. It is claimed that this steel can sustain a greater degree of heat than ordinary steel.

**Chromo-lithography,** the art of printing chromo-lithographs. Color printing was not successful till it was combined with lithography, invented between 1796 and 1800 by Alois Senefelder of Prague. In the art an outline drawing is first traced, then various stones are taken, one for each color, to which the drawing is transferred.

**Chromosphere.** During total eclipses it is observed that a red-colored envelope surrounds the sun, and shoots up to great distances from the surface. It seems to have been first recognized by Secchi; and the projecting portions of it are commonly described as "red-colored protuberances" and "red flames." To this red envelope the name chromosphere was given by Sir J. Norman Lockyer, and till 1868, when M. Janssen and Mr. Lockyer almost simultaneously pointed out a method of viewing it, it was never seen except during eclipses.

**Chronicle,** an historical account of facts or events disposed chronologically or in the order of time. Most of the historians of the Middle Ages were chroniclers who set down the events which happened within the range of their information, according to the succession of years.

In Scriptures, the name of two books, consisting of an abridgement of sacred history from its commencement down to the return of the Jews from the Babylonish captivity.

**Chronograph,** the name given to various devices for measuring and registering very minute portions of time with extreme precision.

**Chronology,** the doctrine of science of time, or of computing dates: the method of ascertaining the true periods, or years, when past events took place, and arranging them in their proper order, according to their dates. The following are the leading systems of chronology existing among the several nations of the world: Chinese and Japanese Chronology: In these calculation is made by cycles of 60 years, each year of the cycle separately named. Hindu Chronology: (1) Historical: No system is universal in India or exclusive. Two of the chief are the era of Salivahana (A. D. 77), and that of Vicramaditya (B. C. 57). (2) Astronomical: The Hindus have four ages. We are now in the Kali Yooga, beginning 3101 B. C.

Greek Chronology: In the time of Herodotus, and subsequently in that of Thucydides, the Greeks had no chronology spanning wide intervals of time. It was not till B. C. 194 that Eratosthenes, the "father" of Greek chronology, began to count by Olym-

piads, the first of which was dated from what we now should call B. C. 776.

Roman Chronology: The method of Roman reckoning was by the consulships, which, of course, could give no indication of time unless their order was carefully preserved, and even then was clumsy. A much simpler and better plan was by calculating years from the building of the city. This Varro placed in what would now be called B. C. 753, while Cato preferred 752.

Jewish Chronology: Up till the 15th century the Jews followed the era of the Seleucidæ. Since then they have dated from the creation of the world, which they fix 3760 years and three months before the commencement of the Christian era.

Mohammedan Chronology: Dates are counted from the Hegira, that is, the time of Mohammed's flight from Mecca to Medina, A. D. 622.

Christian Chronology: Since the 6th century dates have begun to be reckoned from the birth of Christ, though the system did not become universal in Europe till many centuries subsequently.

**Chronometer,** any instrument that measures time, as a clock, watch, or dial; but, specifically, this term is applied to those time-keepers which are used for determining the longitude at sea, or for any other purpose where an accurate measure of time is required, with great portability in the instrument.

**Chrysalis,** the last stage through which certain insects pass before becoming a perfect insect. It is also known by the name, pupa.

**Chrysanthemum,** a genus of herbaceous or slightly shrubby plants, represented in the United States by the well-known ox-eye daisy, and the corn marigold, besides which many varieties have been introduced from other countries.

**Chryseis,** the daughter of Chryses, priest of Apollo, famed for beauty and for her skill in embroidery. She fell to Agamemnon's lot in the course of the Trojan War, but was afterward restored, in order to stop a plague among the Grecians, which Apollo had sent at the request of her father.

**Chrysippus,** a famed Greek philosopher; about 280–206 B. C.; born probably at Soli in Cilicia. He attended at Athens the lectures of Cleanthes, the successor of Zeno, and after his death became head of the Stoic school. He wrote over 700 books.

**Chrysis,** the golden wasp, or ruby-tail fly. They are magnificently colored with metallic hues. They are parasitic, depositing their eggs in the nests of the solitary mason-bees, on the larvæ of which their larvæ live.

**Chrysoberyl,** a gem almost as hard as sapphire, and the finer specimens of which are very beautiful, particularly those which exhibit an opalescent play of light. It is of a green color, inclining to yellow, semi-transparent, or almost transparent, and has double refraction.

**Chrysolite,** a green-colored orthorhombic mineral of a vitreous luster, transparent or translucent.

**Chrysostom, John, St.,** ("golden-mouthed"), a celebrated Greek father of the church; born in Antioch about A. D. 344; died at Comana, in Pontus, in 407.

**Chub,** an American fish, of the genus carp. It is indifferent food, and rarely attains the weight of 5 pounds. Allied European species receive the same name.

**Chubut,** or **Chupat,** a colony in Patagonia, so named from a river which drains a large part of its area. The entrance to the river, about 500 miles S. of the river Platte, is bad, but the bar can be crossed by vessels of from 7 to 12 feet draught. Its principal interest lies in its Welsh settlement, which has remained almost wholly Welsh-speaking.

**Chukiang,** or **Canton River,** the "Pearl River" of the Chinese, is the lower part of the Pekiang, and has a navigable channel of about 300 miles. Opposite Canton it is about ¼ mile wide, and is crowded with shipping.

**Chung-King,** a Chinese port in Szechuen, on the Yang-tze-Kiang, at the junction of the Pei river. It was declared open in 1890, and has acquired a thriving trade. Pop. (1920 Est.) 440,000.

**Chuquisaca,** or **Sucre,** a city of South America, the former capital of

Bolivia; well situated on a plateau between the Amazon and La Plata rivers, 9,343 feet above sea-level. Pop. (1915) 29,686. The province of Chuquisaca has an area of 36,132 square miles; pop. (1915) 333,226.

**Church, Benjamin,** an American soldier; born in Duxbury, Mass., in 1639. He commanded forces with distinction in King Philip's War and in the famous battle of 1675 with the Narragansetts won renown. He killed King Philip in 1676; died in January, 1718.

**Church, Benjamin,** an American physician; born in Massachusetts, about 1710. He was a leader in the "Boston tea-party." He secretly corresponded in cipher with the British, and, being detected, failed to exculpate himself. He sailed for the West Indies in 1776, and was lost at sea.

**Church, Francis Pharcellus,** an American editor; born in Rochester, N. Y., Feb. 22, 1839; died in 1906.

**Church, Frederick Edwin,** an American landscape-painter; born in Hartford, Conn., May 4, 1826. His "View of Niagara Falls from the Canadian Shore," is regarded by many as the most successful representation of the great cataract. He died in New York city, April 7, 1900.

**Church, William Conant,** an American journalist; born in Rochester, N. Y., Aug. 11, 1836. D., 1917.

**Church Army,** an English religious organization, founded in London in 1882 having for its objects the training of working men for ecclesiastical service among the laboring classes.

**Church Discipline,** the practice of the Christian Church in dealing with such of its office-bearers and members as have by public scandal caused hindrance to its common spiritual life.

**Church Government,** the regulation and ordering of spiritual matters, or those pertaining to the discipline and work of the Church.

**Churchill, Randolph Henry Spencer, Lord,** third son of the seventh Duke of Marlborough; born Feb. 13, 1849; entered the British Parliament in 1874, and became a leader of the Conservative party. On the defeat of Gladstone's Irish Bill in 1886 Churchill became leader of the House of Commons and Chancellor of the Exchequer, posts which he unexpectedly resigned in December, 1886. Died in London, Jan. 24, 1895. Lord Randolph married, in 1874, Miss Jennie, daughter of the late Leonard Jerome, of New York City. In 1900, Lady Randolph married George Cornwallis West.

**Churchill, Winston,** an American author; born in St. Louis, Mo., Nov. 10, 1871. He was graduated from the United States Naval Academy in 1894, and became an editor of the "Army and Navy Journal." He wrote "Richard Carvel;" "The Crisis;" "The Crossing;" "Coniston."

**Churchill, Winston Leonard Spencer,** an English author, army officer, and public official; son of the preceding; born Nov. 30, 1874; was educated at Harrow and Sandhurst; entered the army in 1895; served in Cuba (1895), India (1897–8), Egypt (1898), South Africa (1899), and in France (1915–17); was elected to Parliament in 1900; became Parliamentary Secretary for the Colonies, 1905; was Under Secretary for the Colonies, 1905–8; President of the Board of Trade, 1908–10; Home Secretary, 1910–11; First Lord of the Admiralty, 1911; Chancellor of the Exchequer in Baldwin Cabinet, 1924.

**Churchill River,** a river of the Northwest Territories of Canada, which rises in La Crosse Lake and discharges into Hudson Bay.

**Church of God,** a Christian sect which originated in 1830, in a movement in which John Winebrenner, previously a minister in the German Reformed Church, was most prominent. It holds the doctrines of the Evangelical churches, with baptism by immersion only, subsequent to faith; feet-washing; the administration of the Lord's Supper in the evening; all the instrumentalities of revivals; and protests against the traffic in intoxicating drinks. According to the census of 1920 the sect had in the United States in 1920, 550 organizations with 28,367 members.

**Church, States of the,** or **Papal States,** a territory that stretched from the Po to near Naples, and in 1869 had an area of 15,774 square

miles and a pop. of 3,000,000. The war of 1859 and the popular vote of 1860 left the Pope only the Comarca of Rome, the legation of Velletri, and the delegations of Civita Vecchia, Frosinone, and Viterbo, 4,493 square miles in extent, with a pop. of about 700,000, the rest being united with Italy, and in 1870 the remnant of the Pope's temporal possessions were annexed to the kingdom of Italy, of which Rome became the capital. The Pope is, however, still permitted to keep up the state of a sovereign within the precincts of the Vatican.

**Church-warden,** one of two Episcopalian parochial officers chosen annually at the Easter vestries, one by the minister and one by the parishioners. Also the colloquial name of a very long stemmed clay pipe for smoking.

**Churrus,** the resinous exudation of the leaves and flowers of Indian hemp. It is used by the natives of India as an intoxicating drug.

**Churubusco, Battle of,** fought in Mexico, Aug. 20, 1847. After the battle of Contreras, fought on the same day, Santa Ana, with some 27,000 men, made a stand at this hamlet, on the river Churubusco, 6 miles S. of the City of Mexico, to resist the advance of the United States army under Gen. Scott. Of 8,000 United States troops in the two actions there were 139 killed and 926 wounded; the Mexicans lost 4,000 killed and wounded, 3,000 prisoners, 37 guns, and much ammunition.

**Chusan,** the principal of the group of islands known as the Chusan Archipelago; lies about a mile off the E. coast of China, opposite Ningpo. It has an area of over 230 square miles, and a population of 200,000 to 250,000.

**Cibber, Colley,** an English dramatist; born in London, Nov. 6, 1671; was one of the most successful stagers of plays in the history of the theater. In 1730, he was appointed Poet Laureate. His autobiographic "Apology" is his best work. He died Dec. 12, 1757.

**Cibitu,** or **Sibutu,** a southern Philippine island, 14 miles long and 2 miles wide. It is flat, with a conical mountain in the center, 500 feet high. It was sold by Spain (with Caygayan) to the United States in 1900, upon payment of $100,000, having been overlooked in the terms of the treaty of peace. Pop. 500.

**Cicely,** a popular name applied to several umbelliferous plants. Sweet Cicely is found in North American woods from Canada to Virginia.

**Cicero, Marcus Tullius,** a Roman orator; born in Arpinum, in the year of Rome 647 (106 B. C.). He was one of the greatest orators the world has known, and a statesman and patriot of singularly pure conduct and motives. He was executed at the instance of the Triumvirate—Octavianus, Antony and Lepidus, B. C. 43.

**Cid, The, Don Rodrigo (Ruy) Diaz,** Count of Bivar; born in 1026. The model of the heroic virtues of his age, and the flower of Spanish chivalry, styled by his enemies, the Moors of Spain, cid (the lord), and by his king and countrymen Campeador (champion), he continues to live in the poetry of his country. The Cid died at Valencia, in the 74th year of his age (1099). What this hero won, and for many years defended, the united power of Leon and Castile was scarcely able to preserve against the encroachments of the infidels. His dead body was mailed and mounted on his favorite steed and marched out against the enemy, who fled at its approach.

**Cider,** a liquor made from the juice of apples.

**Cienfuegos,** a port and town of Cuba, on the S. coast, at the mouth of Iagua bay, 140 miles from Havana. Cienfuegos is the center of the Cuban sugar trade. Pop. (1922) 95,865.

**Cigar,** a small roll of manufactured tobacco leaves carefully made up, and intended to be smoked by lighting at one end and drawing the smoke through it. The cigars of Havana, Cuba, are considered the best brands.

**Cilia,** the hair which grows from the margin of the eyelids. The term is also applied to microscopic filaments, or plates which project from animal membranes and are endowed with quick vibratile motion. In most of the lower animals the respiratory function is effected by means of the vibratile cilia.

**Cilicia,** an ancient division of Asia Minor, now included in the Turkish province of Adana. In early ages Cilicia was ruled by its own kings, the people, who were probably akin to Syrians, and Phœnicians, being notorious pirates. The country fell successively under Persian, Macedonian, Syrian and Roman rule.

**Cimarrones,** a name used in the Spanish colonies of America for fugitive slaves, of whom in the 16th century many hundreds collected on the Isthmus of Panama, where they built walled towns, attacked the Spanish settlements, and became a terror all over the country. They finally became amalgamated with the Indian tribes.

**Cimarosa, Domenico,** an Italian composer; born in Aversa, Dec. 17, 1749. He became famous when 21 with a comic opera, "The Pretended Parisian." In the ensuing 30 years he wrote over 80 comic operas. As a writer of comic operas Cimarosa has never been surpassed. He died in Venice, Jan. 11, 1801.

**Cimbri,** a Celtic tribe, inhabiting Jutland, having joined with the Teutons, and which entered Illyria, where they defeated Cn. Papirius Carbo, at the head of a consular army, B. C. 113. Marius collected a large army and went to oppose them. The Cimbri and Teutones separated into two bodies, the former taking the road through Helvetia, and the latter pressing forward to assail the Roman army. Their intention was to reunite their forces on the Lombard plains. The Teutones were attacked and overwhelmed by the Romans, and 100,000 men are said to have perished on that occasion, B. C. 102. The Cimbri in the meantime had reached the valley of the Adige, where they defeated the Roman army under Quintus Catulus. He formed a junction with Marius and allured them into an unfavorable position, in which they were defeated and exterminated, B. C. 101.

**Cimmerian Bosphorus,** an ancient name for the Strait of Kaffa.

**Cimmerii,** or **Cimmerians,** a nomadic race, inhabiting the Crimea and parts of the neighboring country, having been expelled by the Scythians, passed along the shores of the Euxine, invaded Asia Minor, and pillaged Sardis, the capital of Lydia, B. C. 635. In that country they were said to have remained until about B. C. 617, when they were defeated and driven out of Asia Minor.

**Cimon,** an ancient Athenian general and statesman, was a son of the great Miltiades. He fought against the Persians in the battle of Salamis (480 B. C.), and shared with Aristides the chief command of the fleet sent to Asia to deliver the Greek colonies from the Persian yoke. He died shortly after, in 449, while besieging Citium in Cyprus.

**Cinchona,** a genus of trees found exclusively on the Andes in Peru and



CINCHONA.

adjacent countries, and recently introduced into India, producing a medicinal bark of great value known as Peruvian bark.

**Cinchona Bark,** the bark of several species of trees used in medicine, or for the extraction of the alkaloids, quinine, cinchonine, etc., which they contain.

**Cinchonism,** a group of symptoms, chiefly connected with the nervous system, produced by the presence of quinine in the system. There are noise in the ears. These noises are accom

panied with more or less deafness. Affections of sight are less common. These symptoms usually pass away in a few days after discontinuing the drug.

**Cincinnati,** a city and county-seat of Hamilton Co., O. It is the second city in the State in population and the thirteenth in the United States, according to the census of 1910. It is built on the N. shore of the Ohio river, directly opposite Covington, Ky.; and is connected with the Kentucky shore by five bridges; area 75 square miles; pop. (1920) 401,158; 1925 Est., 409,333.

The city owns an extensive waterworks system, costing $10,291,722. The principal park in Cincinnati is Eden Park, situated on a hill overlooking the city and the Ohio river. It contains 216 acres and two reservoirs, so constructed as to resemble natural lakes. Burnet Woods, in the N. part of the city, contains 170 acres of woodland. Hopkins, Lincoln, and Washington are smaller parks, forming magnificent pleasure grounds. Spring Grove Cemetery is one of the most beautiful in the West, and contains about 600 acres, well wooded, and many handsome monuments and mausoleums.

The public buildings include the (U. S.) Government Building, of granite, cost $5,200,000; (U. S.) Marine Hospital; the Y. M. C. A. Building, cost, $201,063; the County Court House, and jail, built in Romanesque style; the City Hospital; the City Hall, erected at a cost of over $1,000,000; and the Chamber of Commerce. Cincinnati is also celebrated as the site of one of the earliest astronomical observatories in the United States, founded about the same time as that of Harvard University and the Naval Observatory at Washington. The observatory has since been moved to Mount Lookout, a suburb of Cincinnati, and a much better site than that first selected. The institution is best known for the work done there by Prof. Ormond Stone, one of its former directors, on the measurement of double-stars and the discovery of many new ones. It contains an 11-inch refractor and a new meridian circle. The University of Cincinnati, opened in 1874, had in the school year 1923-24, 4,298 students, with 370 instructors, and an equipment and endowment valued at over $4,600,000.

The industries of the city are of great importance. There are over 3,000 manufacturing establishments. Chief among these are machine tools, soap, clothing, boots and shoes, meat products, furniture, wood working machinery, electrical machinery and chemicals.

There are many beautiful churches and fine public schools. Among municipal benevolent and penal institutions are the City Infirmary, the Work House and the House of Refuge for incorrigible or homeless boys and girls. Besides large public hospitals, there are several private ones, and many orphan asylums and homes.

Cincinnati, named in honor of the Society of the Cincinnati, was first settled by white men in 1780, and was incorporated as a city in 1819. Mounds containing various relics show that a portion of the site of the city was anciently occupied. The first steamboat descending from Pittsburg visited the town in 1811; the Miami canal was completed in 1830; the first railway was opened in 1845.

**Cincinnati,** a society or order in the United States, established by the officers of the Revolutionary army in 1783, "to perpetuate their friendship, and to raise a fund for relieving the widows and orphans of those who had fallen during the war." The badge of the society is a bald eagle suspended by a dark-blue ribbon with white borders, symbolizing the union of France and the United States. On the breast of the eagle there is a figure of Cincinnatus receiving the military ensigns from the senators, round the whole are the words "Omnia reliquit servare rempublicam." Membership descends to the eldest lineal male descendant, and, in failure of direct male descent, to male descendants through intervening female descendants. The general society is composed of the general officers and five delegates from each State society, and meets triennially. In 1854 it ruled that proper descendants of Revolutionary officers who were entitled to original membership, but who never could avail themselves of it, are qualified for hereditary membership, if found worthy, on due application.

**Cincinnatus, Lucius Quinctius,** a wealthy patrician in the early days of the Roman Republic, born about 519 B. C. He succeeded Publicola in the consulship, and then retired to cultivate his small estate beyond the Tiber. The messengers of the senate found him at work on his farm when they came to summon him to the dictatorship. He rescued the army from its peril, and then returned quietly to his farm. At the age of 80 he was again appointed dictator to oppose the ambitious designs of Spurius Mœlius.

**Cinematograph,** a device for showing pictures of men, animals, etc., in motion.

**Cinnabar,** red sulphide of mercury, the principal ore from which that metal is obtained, occurring abundantly in California, China, etc. It is of a cochineal-red color, and is used as a pigment under the name of vermilion.

**Cinnamic Acid,** an acid which exists in the free state in the balsams of tolu and Peru, in liquid storax, and in gum benzoin.

**Cinnamon,** an aromatic substance consisting of the bark of a tree, from which the essential oil of Cinnamon is distilled. The oil has aromatic carminative, and stimulant properties.

**Cinque Ports,** (Five Ports), the sea-port towns of Dover, Sandwich, Hastings, Hythe, and Romney, England; to which three others were afterward added, viz., Winchelsea, Rye, and Seaford. These towns are incorporated, with peculiar privileges; are under the government of a lord warden, to whom writs for the election of members to parliament from them are directed; and the members so elected are termed Barons of the Cinque Ports.

**Cintra,** a town in Portugal, 15 miles W. N. W. Lisbon, finely situated on the slope of the Sierra de Cintra. The kings of Portugal have a palace with fine gardens at Cintra. The town is celebrated for the convention entered into there in 1808, by which the French, after their defeat at Vimeira, were conveyed to France. Pop. 4,751.

**Ciphers,** signs used to represent numbers, whether borrowed signs, as letters, with which the Greeks designated their numbers, or peculiar characters, as the modern or Arabic ones. The ciphers, such as they are at present, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, did not come into common European use until the 11th century.

**Cipher Writing,** a method of sending important intelligence in a manner so effectually disguised that only those for whom the news is intended can understand the meaning of what is written. By this method one word may be used to represent an entire sentence and thus not only is the cost of transmitting a message materially reduced, but the contents become known only to the person for whom it is intended or to the possessor of a key. Cipher codes are employed by the State Departments of all governments and frequently changed. The special code is entrusted to the personal custody of diplomatic officials embarking on a mission, who retain possession of it and destroy it if their lives are endangered.

**Cipriani, Giambattista,** an Italian history-painter and designer; born in Florence in 1727, of an old Pistoja family. He died in Hammersmith, England, Dec. 14, 1785.

**Circassia,** or **Tcherkessia,** a mountainous region in the S. E. of European Russia, lying chiefly on the N. slope of the Caucasus, partly also on the S., and bounded on the W. by the Black Sea, and now forming part of the Lieutenancy of the Caucasus. The mountains are intersected everywhere with steep ravines and clothed with thick forests. Its climate is temperate, its inhabitants healthy and long-lived.

The Circassians, properly so called, have been estimated to number from 500,000 to 600,000.

**Circe,** a daughter of Sol and Perse, celebrated for her skill in magic and poisonous herbs, who lived on an island called Æa, on the coast of Italy. Ulysses, on his return from the Trojan war, visited her coast; and all his companions, who ran headlong into pleasure and voluptuousness, were changed by Circe's potions into swine. Ulysses, fortified against all enchantments by an herb called moly, which he had received from Mercury, demanded from Circe the restoration of his companions to their former state. She complied, loading the hero with

honors; and, for one whole year, he forgot his glory in his devotion to pleasure.

**Circle,** a plane figure contained by one line, which is called the circumference, and is such that all straight lines drawn from a certain point (the center) within the figure to the circumference are equal to one another.

**Circle, Magic,** a space in which sorcerers were wont to protect themselves from the fury of the evil spirits they had raised. This circle was usually formed on a piece of ground about 9 feet square, in the midst of some dark forest, churchyard, vault, or other lonely and dismal spot. Inside the outer circle was another somewhat less, in the center of which the sorcerer had his seat. The spaces between the circles, as well as between the parallel lines which inclosed the larger one, were fillled with all the holy names of God, and a variety of other characters supposed to be potent against the powers of evil. Without the protection of this circle, the magician, it was believed, would have been carried off by the spirits.

**Circuit Court,** a court in the United States next in rank to the United States Supreme Court. The country now has nine circuits, each consisting of several States, and each is allotted to one of the nine justices of the Supreme Court, who must attend at least one term of court in each district of his circuit every two years. The judges of each circuit and the justice of the Supreme Court for the circuit constitute a Circuit Court of Appeals.

**Circular Notes,** notes or letters of credit furnished by bankers to persons about to travel abroad.

**Circular Numbers,** numbers whose powers end on the same figures as themselves; as 0, 1, 5, etc.

**Circulation,** in anatomy and physics, the term used to designate the course of the blood from the heart to the most minute blood-vessels (the capillaries), and from these back to the heart.

**Circulation of Sap,** in plants, its ascent from the root to the leaves and bark, and its partial descent after the elaboration, which it undergoes in these organs.

**Circumcision,** an operation consisting in removing circularly the prepuce of infants. God commanded Abraham to use circumcision as a sign of his covenant; and in obedience to this order, the patriarch at 99 years of age was circumcised, as also his son Ishmael, and all the males of his household (Gen. xvii: 10–12). God repeated the precept to Moses, and ordered that all who intended to partake of the Paschal sacrifice should receive circumcision, and that this rite should be performed on children on the eighth day after their birth (Ex. xii: 44). The Jews and all the other nations sprung from Abraham, as the Ishmaelites, the Arabians, etc., have always been very exact in observing this ceremony. At the present day it is an essential rite of the Mohammedan religion, and though not enjoined in the Koran, prevails wherever this religion is found.

**Circumference,** or **Periphery,** the curve which incloses a circle, ellipse, oval, or other plane figure.

**Circumnavigator,** one who sails round the globe. The first European known to have circumnavigated the globe was Magellan or Magalhaens, a Portuguese, who accomplished the feat in A. D. 1519. From him the Straits of Magellan derive their name.

**Circumpolar Stars,** those that appear to move around the pole and perform their circles without setting.

**Circumstantial Evidence,** evidence obtained from circumstances, which necessarily or usually attend facts of a particular nature, from which arises presumption; any evidence not direct and positive.

**Circumvallation,** or **Line of Circumvallation,** in military affairs a line of field-works consisting of a rampart or parapet, with a trench surrounding a besieged place, or the camp of a besieging army.

**Circus,** among the Romans, a nearly oblong building without a roof, in which public chariot-races and exhibitions of pugilism and wrestling, etc., took place. The modern circus is a place where horses and other animals are trained to perform tricks, and where exhibitions of acrobats and various pageantries, including a large amount of buffoonery, are presented.

**Cirrhosis,** a chronic nonsuppurative inflammation. The term was originally applied to the liver, and was due to alcoholic indulgence.

**Cirta,** the capital of the ancient Massylii in Numidia. After the defeat of Jugurtha it passed into the hands of the Romans, and was restored by Constantine, who gave it his own name.

**Cisalpine Republic,** a former State in North Italy. After the battle of Lodi, in May, 1796, General Bonaparte proceeded to organize two States — one on the S. of the Po, the Cispadane Republic, and one on the N., the Transpadane. These two were on July 9, 1797, united into one under the title of the Cisalpine Republic, which embraced Lombardy, Mantua, Bergamo, Brescia, Cremona, Verona, and Rovigo, the duchy of Modena, the principalities of Massa and Cararra, and the three legations of Bologna, Ferrara, and the Romagna. The republic had a territory of more than 16,000 square miles, and a population of 3,500,000. Milan was the seat of the government or Directory. In 1802 it took the name of the Italian Republic, and chose Bonaparte for its president. A deputation from the republic in 1805 conferred on the Emperor Napoleon the title of King of Italy; after which it formed the kingdom of Italy till 1814.

**Cisleithania,** or **Cisleithan Provinces,** Austria proper or Austria W. of the river Leitha, which partly forms the boundary between it and Hungary.

**Cisneros-Betancourt, Salvador,** a Cuban patriot; born in Puerto Principe in 1832. During the Revolution of 1868–1878, he was president of the Cuban House of Representatives, and during a part of the time president of the Cuban Republic. In 1895 he was re-elected president of the new Cuban Republic. He died Oct. 22, 1910.

**Cissoid,** a curve in geometry, the locus of the vortex of a parabola rolling upon equal parabola.

**Cist,** a place of interment of an early or prehistoric period, consisting of a rectangular stone chest or inclosure formed of rows of stones set upright, and covered by similar flat stones.

**Cistercian,** a monastic order in connection with the Roman Catholic Church.

**Cistern,** a tank for holding water. Cisterns differ from wells in that they do not get their water from natural sources, such as springs, but through channels made by the hand of man.

**Citation,** a summons or official notice given to a person to appear in a court as a party or witness in a cause.

**Cithern,** or **Cittern,** an old instrument of the guitar kind, strung with wire instead of gut.

**Cities of Refuge.** Moses, at the command of God, set apart three cities on the E. of Jordan, and Joshua added three others on the W., whither any person might flee for refuge who had killed a human creature inadvertently. The three on the E. of Jordan were Bezer, Ramoth, and Golan; the three on the W. were Hebron, Shechem, and Kedesh. (Deut. iv: 43; Josh. xx: 1–8.)

**Cities of the Plain,** Sodom and Gomorrah, chief of those five cities which, according to the commonly received account, were destroyed by fire from heaven, and their sites overwhelmed by the waters of the Dead Sea.

**Citizen,** a member of a State or community, an inhabitant of any State or place. "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside."—Constitution of the United States, Amend. xiv., Sec. 1.

**Citric Acid,** is a very widely distributed acid, being present in most common fruits, such as gooseberries, currants, lemons, citrons, cherries, and many others.

**Citron,** a tree of the genus Citrus. A small evergreen shrub introduced into the S. parts of Europe and Asia.

**City,** a municipal organization chartered by the sovereign authority, and endowed with certain powers of self government. In remotely ancient times a city was usually itself a center of sovereign power. This feature survives only in cities like Hamburg and Bremen. It does not exist in American or English cities, which are as much under the control of the State

as the smaller village, and which are in effect simply corporations organized for the better management of corporate affairs, the protection of health, the general safety, and so forth.

**City Manager,** title of a newly-created official in American cities, individually responsible for the entire administrative machinery of a municipality, the director of public affairs under the form of a commission government. He appoints the various department heads, subject to ratification by the commission, and they are accountable only to him and may be removed by him at any time. The innovation is developing a unique group of public servants, not politicians or transplanted business men, but a new type of specially qualified administrators. Up to Jan. 1, 1924, 347 cities under commission government had adopted the city manager plan, and many others not under commission government had done so. See COMMISSION GOVERNMENT.

**City Planning,** a movement for municipal betterment that has developed wide-spread interest and civic activities in many of the large cities of the United States, especially since 1910. It is claimed that city planning is the application of wise foresight to the control of a city's destiny. It attracts industries, commerce, and visitors; it produces better transportation facilities, improved hygienic conditions, more adequate and less expensive living quarters; and it includes not only the æsthetic beautification of the city, but the construction and co-ordination of all the elements which go to make the modern city a practical operative mechanism. The straightening of old crooked roads, the elimination of unsightly buildings, and particularly the rebuilding of municipal and other public buildings in a center approachable from any direction by straight, broad, attractive boulevards, are among the first provisions. Chicago, Boston, Kansas City, Los Angeles, and New York have taken the lead in this movement, and now over one hundred cities had begun, or were planning civic betterments.

**Civics, School,** a feature of educational methods recently introduced into many of the public and other schools of the United States, especially designed to impart to youth a practical conception of the science of government. To render the course of study and practice as realistic as possible, a portion of the students is organized into a body similar to that which governs their own city, or in advanced instances, those under commission government. Ordinarily there are a mayor, councilmen or commissioners, heads of the usual executive departments, and representatives of the leading public activities. These officials are elected by the students from among their number, and are then instructed in the various duties and responsibilities that pertain to their elder prototypes.

**Ciudad-Rodrigo,** a fortress in Spain, in Leon, on the river Aguada. In the Peninsular War it was taken by storm by the British under Wellington, after a siege of 11 days. The Cortes gave him the title of Duke of Ciudad-Rodrigo.

**Civil Service,** that branch of the public service which includes the non-military servants of the government. In January, 1883, the United States Congress passed a law to prevent the abuse of the appointing power of the officers of government. The President was authorized to appoint, with the advice and consent of the Senate, three civil service commissioners, whose duty is to aid the President in preparing suitable rules which shall provide for open competitive examinations for testing the fitness of applicants for the public service, such examinations to be practical in their character, and so far as may be relating to those matters which will fairly test the relative capacity and fitness of the persons examined to discharge the duties of the service. All the places arranged in classes are to be filled by selections according to grade from among those standing highest as the result of such examinations. The appointments to the public service in the departments at Washington are to be proportioned upon the basis of population of the several States and Territories and the District of Columbia. The law provides a period of probation before any absolute appointment is made, and exempts all persons in the public service from all obligation to contribute to any political fund or to render any political service. It for-

bids any person in the public service using his official authority to coerce the political action of any other person or body. Non-competitive examinations in all proper cases are provided for after notice given of a vacancy, the appointing power to give notice in writing to the civil service commission of the persons selected for appointment among those who have been examined. Power is given this commission to make regulations for, and to have control of, such examinations, subject to the rules made by the President. The civil service commission is required to report annually to the President, for transmission to Congress, its own action, the rules and regulations, and the exceptions thereto in force, the practical objects thereof, and any suggestions for the more effectual accomplishment of the purposes of the law. Provision is made for holding examinations at convenient places twice each year in every State and Territory of the United States.

The statute punishes by fine and imprisonment all in the public service who wilfully defeat, obstruct, or deceive any person in respect to his or her right of examination, or who shall corruptly and falsely mark, or report upon the proper standing of any person examined, or aid in so doing, or who shall furnish to any person any special or secret information for the purpose of either improving or injuring the prospects of any person so examined appointed, employed, or promoted. It was provided that after six months from the passing of the act, no officer or clerk was to be appointed until after passing examination, unless specially exempted by the act; and no person in the habit of using intoxicating beverages to excess is to be appointed to or retained in any employment to which the act applies.

**Civil War, American,** the war in the United States, caused by the attempt of the Southern States to establish an independent government under the name of the Confederate States of America.

The result of the war was to establish the fact that the United States is a nation, and that no State has the right to secede from the Union. It also resulted in the abolition of slavery, and the 13th Amendment to the Constitution, adopted after the war, extinguished slavery in the United States. During the Civil War there were 2,778,304 men mustered into service on the Union side and about 600,000 on the Confederate. The number of casualties in the volunteer and regular armies of the United States during the war, according to a statement prepared by the Adjutant-General's office, was as follows: Killed in battle, 67,058; died of wounds, 43,012; died of disease, 199,720; other causes, such as accidents, murder, Confederate prisons, etc., 40,154; total died, 349,944; total deserted, 199,105. Number of soldiers in the Confederate service who died of wounds or disease (partial statement), 133,821. Deserted (partial statement), 104,428. Number of United States troops captured during the war, 212,608; Confederate troops captured, 476,169. Number of United States troops paroled on the field, 16,431; Confederate troops paroled on the field, 248,599. Number of United States troops who died while prisoners, 30,156; Confederate troops who died while prisoners, 30,152.

**Claflin, Mary Bucklin,** an American prose-writer; born in Hopkinton, Mass., July, 1825. She was the wife of Governor Claflin, of Massachusetts. For 18 years she was a trustee of Boston University; and of Wellesley College from its foundation till her death, which occurred in Whitinsville, Mass., June 13, 1896.

**Claflin University,** a co-educational institution in Orangeburg, S. C.; organized in 1869, under the auspices of the Methodist Episcopal Church, exclusively for the colored race.

**Clairvaux,** a village of France, on the Aube, 10 miles S. E. of Barsur-Aube; is remarkable as the site of the once famous Cistercian Abbey, founded in 1115 by St. Bernard, who presided over it till his death in 1153, when he was buried in the church.

**Clairvoyance,** defined as the power of perceiving without the use of the organ of vision or under conditions in which the organ of vision with its natural powers alone would be useless. It comprises the sight of things past, present, or future, and various methods are observed in its performance.

**Clam,** the popular name of certain bivalvular shell-fish of various genera and species. The giant clam has the largest shell known, and the animal is used as food in the Pacific. The common American clam is found in gravelly mud, sand, and other soft bottoms, especially between high and low water mark. They are largely used for bait, and are a much-relished article of food.

**Clan,** a tribe or number of families, bearing the same surname, claiming to be descended from the same ancestor and united under a chieftain representing the ancestor.

**Clapboard,** a thin, narrow board commonly used for covering the sides of wooden buildings.

**Clapperton, Hugh,** an African traveler; born in Dumfriesshire, Scotland, in 1788. He was the first European who traversed the whole of Central Africa from the Bight of Benin to the Mediterranean. He died in Africa in April, 1827.

**Claque,** a body of hired applause-makers, openly employed in France and sometimes secretly resorted to elsewhere.

**Clare, St.,** born in 1193, of a noble family of Assisi; in 1212 retired to the Portiuncula of St. Francis, and in the same year founded the order of Franciscan nuns. She died Aug. 11, 1253. THE NUNS OF THE ORDER OF ST. CLARA (also called the Poor Clares) at first observed the strictest Benedictine rule, but the austerity of this rule was mitigated by St. Francis in 1224, and further modified by Urban IV. in 1265. A large proportion of the nuns adopted Urban's rule.

**Clarence, Duke of.** See GEORGE. DUKE OF CLARENCE.

**Clarendon, Constitutions of,** a code of laws adopted in the 10th year of Henry II. (1164), at a council of prelates and barons held in the village of Clarendon, in Wiltshire, in January of the above year. Ten of the articles were condemned, and six allowed by Pope Alexander III. The six articles approved of were of comparatively slight importance, mostly confirming the privileges of the ecclesiastical order.

**Clarendon, Edward Hyde, Earl of,** Lord High Chancellor of England; born in Dinton, Wiltshire, in 1608. During the civil wars he zealously attached himself to the royal cause, was made successively chancellor of the exchequer and privy councillor. After the failure of the royalist arms he took refuge in Jersey, and then joined Prince Charles in Holland. He contributed to the Restoration, accompanied Charles II. to London, and was made Lord Chancellor. His daughter Anne was married to the Duke of York, afterward James II., and two daughters, Anne and Mary, both ascended the English throne. He died in Rouen in 1674.

**Claret,** a name given to wines of a light-red color.

**Clarification,** the act or process of making any liquor clear and bright by freeing it from visible impurities. It differs from purification in that a liquid, though clear to the sight, may still contain a large amount of impure matter.

**Clarinet,** or **Clarionet,** a musical instrument. It consists essentially of a mouth-piece furnished with a single beating reed, a cylindrical tube ending in a bell, and provided with 18 openings in the side, half of which are closed by the fingers and half by the keys.

**Clark, Abraham,** an American patriot; born in Elizabethtown, N. J., Feb. 15, 1726. He was a delegate to the Continental Congress and signed the Declaration of Independence. He aided in framing the Constitution of the United States. He died in Rahway, N. J., Sept. 15, 1794.

**Clark, Alexander,** an American clergyman and writer; born in Jefferson county, Ohio, in 1834. Died in Georgia, July 6, 1879.

**Clark, Alonzo Howard,** an American scientist; born in Boston, April 13, 1850. Since 1881 he has been connected with the Smithsonian Institution.

**Clark, Alvan,** an American astronomical-instrument maker; born in Ashfield, Mass., March 3, 1804. He was at one time a portrait painter. His attention was turned to telescope making and he achieved a world-wide reputation. He died in Cambridge, Mass., Aug. 9, 1887. His son, Alvan Graham Clark, born in Fall River,

Mass., July 10, 1832, was associated with his father and his brother George in the manufacture of telescopes. He died in 1897.

**Clark, Champ,** an American statesman; born in Anderson county, Ky., March 7, 1850; received a collegiate education; admitted to the bar in 1875; settled in Bowling Green, Mo., to practice in 1880; Democratic member of Congress, excepting one term, since 1893; minority leader there in 1908-11; speaker, 1911-19; died, 1921.

**Clark, Charles Dickson,** an American jurist; born in Laurel Cove, Tenn., Oct. 7, 1847. He practiced as a lawyer in his native State until 1895, when he was appointed Judge of the United States Court for two districts in Tennessee. He died in 1908.

**Clark, Charles Edgar,** an American naval officer; born in Bradford, Vt., Aug. 10, 1843. He entered the naval service in 1860; was promoted captain in 1896. In March, 1898, he took command of the battleship "Oregon," and when war with Spain was deemed inevitable he received orders to proceed to Key West, Fla., with all haste. After a most remarkable voyage of over 14,000 miles, he joined the American fleet in Cuban waters on May 26, and commanded his ship at the battle of Santiago. Was assigned to duty at the League Island navy yard; promoted rear-admiral June 16, 1902; and retired Aug. 10, 1905.

**Clark, Daniel,** a Canadian pathologist; born in Granton, Scotland, Aug. 29, 1836. He was taken to Canada when a child; practiced medicine in Ontario with great success. He has paid especial attention to the care of the insane and since 1875 he has been at the head of the Provincial Asylum for the Insane at Toronto.

**Clark, Edward,** an American architect; born in Philadelphia, in 1824. He studied architecture, and after serving as assistant was made chief architect of the United States Capitol in 1864, serving till his death in 1902.

**Clark, Francis Edward,** an American clergyman; born in Aylmer, Quebec, Sept. 12, 1851. He became pastor of a Congregational Church at Portland, Me., and there organized the first Young People's Society of Christian Endeavor, Feb. 2, 1881.

**Clark,** or **Clarke, George Rogers,** an American pioneer; born near Monticello, Va., Nov. 19, 1752. He studied surveying, and settled in Ohio, serving in the Indian wars of that time and region. He removed to Kentucky in 1775, procuring the organization of that territory. On the outbreak of the Revolutionary War he led the patriot army on the frontier, campaigning against the British throughout Illinois, Ohio and Kentucky. His success in this saved much territory to the colonies in the final treaty of peace with Great Britain. He died near Louisville, Ky., Feb. 18, 1818.

**Clark, Henry James,** an American naturalist and prose-writer; born in Easton, Mass., June 22, 1826; was associated in work with Agassiz for several years. He died in Amherst, Mass., July 1, 1873.

**Clark, James Gowdy,** an American balladist; born in Constantia, N. Y., June 28, 1830. He was well known as a concert singer and song writer. Among his most popular songs are "The Beautiful Hills," "Freedom's Battle Hymn," etc. He served as a volunteer during the Civil War, and died in Pasadena, Cal., in September, 1897.

**Clark, John Bates,** an American economist; born in Providence, R. I., Jan. 26, 1847. He is prominent as a political economist. In 1900 he was Professor of Political Economy at Columbia University.

**Clark, John Emory,** an American scientist; born in Northampton, N. Y., Aug. 8, 1832. After serving in the Civil War he became Professor of Astronomy at Antioch College. Since 1873 he has been Professor of Mathematics at the Sheffield Scientific School of Yale University.

**Clark, Jonas Gilman,** an American philanthropist; born in Hubbardston, Mass., Feb. 1, 1815. He is noted as the founder of Clark University, Worcester, Mass. He also conferred gifts on his native town. He died in Worcester, Mass., May 23, 1900, and bequeathed $200,000 to Clark University outright and $1,000,000 and the residue of his estate conditionally.

**Clark, Lewis Gaylord,** an American journalist and humorous writer; born in Otisco, N. Y., March 5, 1810.

In 1834 he became editor of the "Knickerbocker Magazine," and made it the foremost literary publication of that time. He died in Piermont, N. Y., Nov. 3, 1873.

**Clark, Thomas March,** an American clergyman; born in Newburyport, Mass., July 4, 1812. He entered the Presbyterian ministry and in 1836 became an Episcopalian priest. He was chosen Bishop of Rhode Island in 1854. He died Sept. 7, 1903.

**Clark, Walter,** an American jurist; born in Halifax, N. C., Aug. 19, 1846. He became a lawyer in 1868, judge of the Superior Court in 1885 and of the Supreme Court in 1889.

**Clark, William,** an explorer; brother of George Rogers Clark; born in Virginia, Aug. 1, 1770; emigrated with his family at the age of 14 to the falls of the Ohio, in Kentucky, on the present site of Louisville. In 1808 he was appointed in conjunction with Capt. Meriwether Lewis to the command of an expedition designed to explore the N. W. territory. His journal and the account kept by him of the astronomical observations made by him and Captain Lewis have been published. He was appointed in 1813 governor of the Northwest Territory and superintendent of Indian affairs, which offices he retained till 1820, when Missouri was created a State. Two years afterward he was again appointed commissioner and superintendent of Indian affairs. He died in St. Louis, Mo., Sept. 1, 1838.

**Clark, William Andrews,** an American capitalist; born near Connellsville, Pa., Jan. 8, 1839. He settled in Montana in 1863, and acquired a great fortune. He was the Democratic choice for United States Senator from Montana in 1890 and 1896, and in 1899 the Legislature elected him. In April, 1900, the United States Senate declared his election void; re-elected 1901. Died, 1925.

**Clark, William Bullock,** an American scientist; born in Brattleboro, Vt., Dec. 15, 1860. He became instructor in Geology at Johns Hopkins University in 1887, and since 1894 has been Professor of Geology there. In 1891 he was appointed Director of the Maryland Weather Service.

**Clark, Willis Gaylord,** an American poet, twin brother of Lewis Gaylord; born in Otisco, N. Y., March 5, 1810; died in Philadelphia, Pa., June 12, 1841.

**Clarke, Augustus Peck,** an American physician; born in Pawtucket, R. I., Sept. 24, 1833. He was an army surgeon during part of the Civil War, and subsequently entered private practice. He has been sent to every International Medical Congress since 1887, and since 1894 has been Dean of the College of Physicians and Surgeons in Boston.

**Clarke, Benjamin Franklin,** an American educator; born in Newport, Me., July 14, 1831. He became Pres. of Brown University in 1898.

**Clarke, Sir Caspar Purdon,** Anglo-American archæologist and art-critic, b. 1846. He studied art, architecture and archæology, became director of the South Kensington Museum, and in 1905-10 was director of the Metropolitan Museum of Art, N. Y. C. He died March 29, 1911.

**Clarke, Creston,** an American actor; born in Philadelphia, Aug. 20, 1865. He made his début in London, 1882, and has attained success in tragic rôles.

**Clarke, Edith Emily,** an American librarian; born in Syracuse, N. Y., Nov. 5, 1859. She became chief cataloguer of public documents for the National Government in 1895, and librarian of the University of Vermont in 1898.

**Clarke, James Freeman,** an American Unitarian clergyman and author; born in Hanover, N. H., April 4, 1810; died June 8, 1888.

**Clarke, John Hessin,** an American jurist; born in Lisbon, O., Sept. 18, 1857; was graduated at Western Reserve University in 1877; admitted to the Ohio bar in 1878; practiced till 1914, when he was appointed United States District judge at Cleveland; and became an Associate Justice of the United States Supreme Court July 14, 1916, succeeding Justice Charles E. Hughes, Republican candidate for President.

**Clarke, John Mason,** an American scientist; born in Canandaigua, N. Y., April 15, 1857. He was Professor of Geology at Smith College and sub-

sequently became State Palæontologist of New York.

**Clarke, John Sleeper,** an American actor; born in Baltimore, Md., Sept. 3, 1833. He was a theatrical manager and a brother-in-law of Edwin Booth. He died in London, England, Sept. 14, 1899.

**Clarke, McDonald,** an American poet; born in Bath, Me., June 18, 1798. He was an eccentric character, familiarly known as "the mad poet"; the subjects of Clarke's verses were usually the belles of the city and topics of the day. He died in New York, March 5, 1842.

**Clarke, Mary Bayard,** an American author; born in Raleigh, N. C., in 1822. While living in Cuba she published verses, and after her return in 1855 she wrote "Reminiscences of Cuba." She died in 1886.

**Clarke, Rebecca Sophia** ("Sophie May"), an American writer of children's stories; born at Norridgewock, Me., 1833; died in 1906.

**Clarke, Richard Henry,** an American author; born in Washington, D. C., July 3, 1827. He was made president of the Society of American Authors in 1891.

**Clark University,** a co-educational institution in Atlanta, Ga.; organized in 1870 under the auspices of the Methodist Episcopal Church.

**Clark University,** Worcester, Mass., an institution founded in 1887 by Jonas Gilman Clark (q. v.), and designed for advanced students in science. At the death of Mr. Clark in 1900, the University received a bequest of $2,500,000 for the establishment of an undergraduate department.

**Claude Lorraine,** a landscape painter whose real name was Claude Gelée, but who was called Lorraine from the province where he was born in 1600. He traveled in Italy, France and Germany, but settled in 1627 in Rome, where his works were greatly sought for, and where he lived much at his ease until 1682, when he died of gout. He excelled in luminous atmospheric effects, of which he made loving and elaborate studies. He made small copies of all his pictures in six books known as "Libri di Verità" (Books of Truth), which form a work of great value.

**Claudianus, Claudius,** a Roman poet of the 4th century. He stood high in favor with the Emperors Honorius and Arcadius, and was promoted to the highest honors of the state. He was the last of the non-Christian poets of Rome.

**Claudius I., Tiberius Drusus Nero,** sur-named Germanicus and Britannicus, the fourth Emperor of Rome; born in Lyons, B. C. 10. After spending 50 years of his life in a private station, he was, on the murder of Caligula, his nephew, A. D. 41, proclaimed Emperor by the soldiers, and confirmed in the sovereignty by the Senate. He died, A. D. 54, of poison administered by his second wife Agrippina.

**Claudius, Appius,** a Roman decemvir (451 and 450 B. C.), who gained the high favor of his fellow-citizens by his ability and activity. In the latter year he began to show his real aims toward absolute power. The indignation of the Roman populace reached a height on account of his tyrannical action toward Virginia, daughter of a plebeian named Lucius Virginius. The patrician gained possession of the maiden by pretending that she was the born slave of one of his clients. Her lover Icilius summoned her father from the army. To save his daughter from dishonor, the unhappy father seized a knife and slew her. The popular indignation and the father's appeal to the army overthrow the decemviri, and Appius was flung into prison, where he died by his own hand.

**Clausel, Bertrand,** a marshal of France; born in Mirepoix in 1773. He accompanied Junot and Massena to Spain in 1810. In 1813 Napoleon rewarded his valor by conferring on him the chief command of the forces in the N. of Spain. On the restoration of the Bourbons he came to the United States, and lived here for a long time, but when Charles X. was overthrown, in 1830, he received from Louis Philippe the command of the French troops in Algeria, which he retained till 1836. He died in 1842.

**Clavichord,** a key and stringed instrument, not now in use, being superseded by the pianoforte.

**Clavicle,** the collar-bone. It connects the upper limb with the trunk.

**Clavijero, Francisco Xavier,** Mexican historian, b. 1731; d. 1787.

**Claxton, Kate** (MRS. CHARLES A. STEVENSON), an American actress; born in New York city in 1848. She made her début at Daly's Theater before she was out of her teens, but her success dates from 1873.

**Claxton, Philander Priestly,** an American educator; born in Bedford Co., Tenn., Sept. 28, 1862; was educated at the University of Tennessee, Johns Hopkins University, and in Germany; made a study of schools in Europe in 1897; was Professor of Pedagogy and Secondary Education in various colleges in 1893–1911; became United States Commissioner of Education, July 1, 1911.

**Clay, Cassius Marcellus,** an American diplomatist; born in Madison county, Ky., Oct. 19, 1810. He was an opponent of slavery and supported Lincoln for the Presidency. From 1862 to 1869 he was Minister to Russia. In 1886 he published his speeches. His old age was marked by eccentricity. He died in 1905.

**Clay, Frederick,** an English composer; born in Paris, Aug. 3, 1840. His most successful production was "The Black Crook." He died in London, Nov. 27, 1889.

**Clay, Henry,** an American statesman; born in "The Slashes" district, Hanover county, Va., April 12, 1777. Becoming a student of law, in his 21st year, he was admitted to the bar, and began practice at Lexington, Ky. His success was signal and immediate. About 1804 he entered politics, and in 1806 became United States Senator for a single year, to fill the unexpired term of Mr. Adair; and in 1811 was elected to, and chosen speaker of, the House of Representatives, remaining in that post till 1814, when he was sent abroad as one of the commissioners to negotiate the treaty of peace with England at Ghent. On his return he was again sent to Congress, and reëlected to his old position as speaker. He had a prominent share in the vehement discussions about slavery which were excited in 1820 by the question respecting the admission of Missouri into the Union; and he was (if not the author) the earnest advocate of the famous "compromise" on that subject. In 1824 he was a candidate for the Presidency against J. Q. Adams, General Jackson, and W. H. Crawford, and no choice being effected in the Electoral College, when the matter came up to the House of Representatives Clay and his friends voted for Mr. Adams, thereby securing his election. During the entire period of the Adams administration, 1825–1829, Clay was Secretary of State, and performed the duties of that office with consummate ability. In 1831, he returned to the United States Senate, and became the leader of the opposition to General Jackson's government, and strove, but ineffectually, against the removal of the deposits from the United States Bank. Through his influence also, the "Compromise Bill," as it was called, was passed through Congress, which put an end to the Nullification controversy by a partial abandonment of the protective system.

In 1832, he was again the candidate of his party for the presidency, though with little chance of success, owing to the overwhelming popularity of General Jackson, who was reelected. In March, 1842, he resigned his seat in the Senate, and retired into private life, till 1844, when he came forward a third time as a candidate for the Presidential chair. In one of the most exciting political contests that ever occurred in the United States he was again defeated, but by a very small numerical majority. The immediate consequence of this defeat was the annexation of Texas, a measure to which he had given his strenuous opposition. This was virtually the termination of his public career, though, in 1849, he consented to resume his seat in the Senate, in view of the perilous contest which was then impending between the slaveholding party and its opponents, on the California and territorial questions. He was the author of the celebrated "Compromise of 1850," as it was termed, through which, after a long and vehement struggle, this dispute was, for the time being, adjusted. The excitement and exhaustion occasioned by this last great controversy gave the final blow to his already enfeebled constitution, and he died in Washington, June 29, 1852.

**Claymore,** formerly the large two-handed, double-edged sword of the Scotch Highlanders; now a basket-hilted, double-edged broad-sword.

**Claypole, Edward Waller,** an American geologist born in England, June 1, 1835. He became Professor of Geology and Biology in the California Polytechnic Institute in Pasadena, and served also on the Geological Survey of Pennsylvania. He was a member of a number of geological societies in America, London, and Edinburgh, and of the American Association for the Advancement of Sciences. He died in Long Beach, Cal., Aug. 17, 1901.

**Clayton, John Middleton,** an American statesman; born in Sussex county, Del. in 1796. He was successively United States Senator, chief justice of his native State, and United States Senator a second time, when he became Secretary of State under Gen. Taylor. In this capacity he negotiated the Clayton-Bulwer Treaty. Clayton resigned his office on General Taylor's death in 1850, but remained in the Senate till his death, Nov. 9, 1856.

**Clayton, Powell,** an American military officer; born in Bethel, Pa., Aug. 7, 1833. When the Civil War broke out he entered the Union army as captain of the 1st Kansas Infantry, and in 1864 was promoted Brigadier- General of volunteers. At the close of the war he settled in Arkansas; was elected governor in 1868; United States Senator in 1871-1877; appointed Minister to Mexico in 1897, and raised to the rank of ambassador in 1899. He died Aug. 25, 1914.

**Clayton-Bulwer Treaty,** a convention between the United States and Great Britain, concluded April 19, 1850, and deriving its name from John M. Clayton, Secretary of State of the United States, and Sir Henry Bulwer, British Minister of Washington. The object of the treaty was to aid the construction of an interoceanic canal on either the Nicaragua or Panama routes.

**Clearance of Vessels,** the examination of them by the proper custom-house officers, and the giving of a certificate that the regulations have been duly complied with.

**Clearing-house,** a financial institution which makes daily adjustment of debits and credits among the banks constituting its membership. In the year ended Sept. 30, 1923, the exchanges at the 218 clearing-houses in the United States aggregated $411,251,633,000, an increase in a year of $30,000,000, New York City leading with $214,621,430,806.

**Cleef, (I.), Joseph van,** surnamed the Fool; born in Antwerp in 1480, one of the most celebrated painters of his time. He died insane in 1529. (2) John, a painter; born in Rome in 1646, belongs to the Flemish school. He died in 1716.

**Clef,** a character placed at the beginning of a stave, to show the elevation of that particular stave in the musical system, and to define the position and name of each note.

**Clematis.** See TRAVELER'S JOY.

**Clemenceau, Georges Benjamin,** French statesman and author, b. Mouilleron-en-Pareds, 1841, became a physician, mayor of Montmartre 1870, championed Dreyfus; became Premier in 1917 and Minister of War. Helped dictate terms of peace with Germany.

**Clemens, Samuel Langhorne,** best known by his pen-name MARK TWAIN, an American humorist, born in Florida, Mo., Nov. 30, 1835. After a common-school education, he was in turns compositor, Mississippi pilot, Confederate soldier, a Nevada newspaper reporter, gold-miner, and a lecturer. He sprang into celebrity in 1869 with the "Innocents Abroad." Also wrote "A Tramp Abroad," "Huckleberry Finn," "Pudd'nhead Wilson," etc. As a writer he possessed a remarkable fund of humor. Died April 20, 1910.

**Clement VII.,** Pope, (Giulio de Medici), nephew of Lorenzo the Magnificent, and cousin of Leo X., succeeded Adrian VI. in 1523. It was during his reign that schism occurred which ultimately resulted in the separation of England from the Romish Church. He died in 1534, and was succeeded by Paul III.

**Clement XI.,** (Giovanni Francesco Albani), born in Pesaro, 1649, succeeded Innocent XII., 1700. He issued the famous Unigenitus bull. Died in 1721, succeeded by Innocent XIII.

**Clement XIII.**, (Carlo Rezzonico), born in Venice, 1693, succeeded Benedict XIV., 1758. The Jesuits having been expelled from France, Spain, Portugal, and Naples, he made great but useless efforts to reinstate them. He died in 1769. He was succeeded by Clement XIV.

**Clement XIV.**, (Giovanni Vincenzo, Antonio Ganganelli), born in St. Arcangelo, 1705. Being of a conciliating disposition, he lived on good terms with all the European courts. He died in 1774, and was succeeded by Pius VI.

**Clément, Jacques,** the assassin of Henry III. of France; born in 1567. Having fatally stabbed the king, he was at once killed by the courtiers; but the populace, instigated by the priests, regarded him as a martyr; and Pope Sixtus V. even pronounced his panegyric.

**Clement, William Henry Pope,** a Canadian lawyer; born in Vienna, Ont., May 13, 1858. He has written "The Law of the Canadian Constitution" (1892), a work that was made a text-book in the principal colleges and universities of the Dominion.

**Clementi, Muzio,** an Italian pianist and composer; born in Rome in 1752. He represented perhaps the highest point of technique of his day, and his influence on modern execution has led to his being characterized as "the father of pianoforte playing." He died in England in 1832, and was interred in Westminster Abbey.

**Clemson Agricultural College,** an educational (non-sect.) institution in Clemson College Station, S. C.; organized in 1890.

**Cleon,** an Athenian demagogue, orginally a tanner by trade. He was sent in 422 against Brasidas, but allowed himself to be taken unawares, and was slain while attempting to flee.

**Cleopatra.** Among several Egyptian princesses of this name, the most renowned was the eldest daughter of Ptolemy Auletes, wife of his eldest son Ptolemy, with whom she shared the throne of Egypt. She accompanied Antony on his march against the Parthians, and when he parted from her on the Euphrates he bestowed Cyrene, Cyprus, Cœlosyria, Phœnicia, Cilicia, and Crete on her, to which he added part of Judea and Arabia at her request. The war between Augustus and Anthony commenced, and at Actium the fleets met. Cleopatra, who had brought Antony a reinforcement of 60 vessels, suddenly took to flight, and thus caused the defeat of her party. They fled to Egypt, and declared to Augustus that if Egypt was left to Cleopatra's children they would thenceforth live in retirement. But Augustus demanded Antony's death and advanced toward Alexandria. Antony threw himself upon his sword, and Augustus succeeded in getting Cleopatra into his power. She still hoped to subdue him by her charms; but her arts were unavailing, and becoming aware that her life was spared only that she might grace the conqueror's triumph, she determined to escape this ignominy by a voluntary death. She ordered a splendid feast to be prepared, desired her attendants to leave her, and put an asp, which a faithful servant had brought her, concealed among flowers, on her arm, the bite of which caused her death (30 B. C.). At the time of her death she was 39 years old, and had reigned over Egypt 22 years.

**Cleopatra's Needles,** two obelisks that were set up at the entrance of the Temple of the Sun, in Heliopolis, Egypt, by Thothmes III., about 1831 B. C. In 1819 one of these obelisks was presented by the Egyptian Government to England, but as no one knew how to move them, it was not taken to London until 1878. Later the other obelisk was presented to the United States, and is now in Central Park, New York city.

**Clergy,** the body or order of men chosen or set apart to the service of God, in the Christian Church; in contradistinction to the lay worshipers.

**Clerk,** one who has charge of an office or department, subject to a higher authority as a board, corporation, etc.; a secretary, as, the Clerk of the House of Representatives or Senate; Clerks of the various courts, clerks of cities, etc.

**Clermont, The,** the name given by Robert Fulton to the steamboat in which he made his first trip from New York city to Albany in 1807.

**Cleveland,** city, county-seat and port of entry of Cuyahoga Co., O. It is the first city in population and importance in Ohio and sixth in the United States in 1910. The city has a harbor secured by artificial breakwaters. Pop. (1920) 796,836; (1925 Est.) 936,485. Has grown as a manufacturing center; is also the center of the malleable iron trade in the United States; and surpasses all other lake ports in the building of iron and steel vessels. Its industries are varied and very large. There are over 2,700 industrial establishments. There are over 100 elementary schools, 15 high schools, 10 junior high schools and 12 parochial high schools. The institutes for higher education include Western Reserve University, Case School of Applied Science, and St. Ignatius College. Cleveland was settled in 1796, under the direction of Gen. Moses Cleaveland, agent of the Connecticut Land Company. It was situated in the "Western Reserve" of the State of Connecticut.

**Cleveland, Grover,** an American statesman; twice President of the United States; born in Caldwell, Essex Co., N. J., March 18, 1837; son of a Presbyterian clergyman. He settled in Buffalo and studied law, and in 1863 became assistant district attorney of Erie Co., N. Y. After becoming in succession sheriff and mayor of Buffalo, he was chosen governor of New York in 1882. In 1884 he received the Democratic nomination for the presidency, and was elected, defeating James G. Blaine. He was renominated in June, 1888, but was defeated by Benjamin Harrison, Nov. 6 following. After a successful law practice of four years he was again nominated by the Democratic National Convention of 1892, in spite of the opposition of the delegates from his own State, and elected by very large majorities. Some of the measures of his administration were: The settlement of the Venezuelan boundary question with Great Britain; the consolidating of post-offices in large centers so as to increase the scope of the civil service rules; and most notably the conclusion in January, 1897, of a general arbitration treaty with Great Britain, which, however, was rejected by the Senate. He married Frances Folsom in 1886. From 1907 till his death, June 24, 1908, he was chairman of the Association of Life Insurance Presidents.

**Cleveland, Rose Elizabeth,** an American prose-writer, sister of Grover Cleveland; born in Fayetteville, N. Y., 1846. After the inauguration of her brother (1885) she became the "mistress of the White House," remaining there until 1886.

**Cleves,** (German Kleve), a town in Rhenish Prussia. In the center of the town rises the old and renowned Schwanenburg (Swan's Castle), the ancient residence of the dukes of Cleves, founded, says tradition, by Julius Cæsar. Prussia (Brandenburg) acquired Cleves in 1609. Pop. 18,135.

**Clianthus,** a genus of plants, having crimson, scarlet, and flesh-colored flowers.

**Clients,** in ancient Rome, citizens of the lower ranks who chose a patron from the higher classes, whose duty it was to assist them in legal cases, to take a paternal care of them, and to provide for their security. In modern times the word client is used for a party to a lawsuit who has put his cause into the hands of a lawyer.

**Cliff Dwellers,** a race of Indians who lived in the cliffs bordering on the valleys of the Rio Grande and Rio Colorado. Their homes were built in the recesses of these cliffs at a height often several hundred feet from the ground. How the inhabitants subsisted is not known, but probably mainly by hunting and fishing, as the soil about these localities is barren.

**Climacteric,** critical, dangerous, pertaining to the great climacteric, or to any one of lesser peril. A climacteric disease is a disease affecting both men and women about the 63d year of age, but varies in the time of its coming, according to the constitution of the individual. Its most common predisposing cause is mental anxiety or suffering.

**Climate,** in its most general acceptation, embraces all those modifications of the atmosphere by which our organs are sensibly affected; such as temperature, humidity, variations of barometric pressure, the tranquillity of the atmosphere or effects

of winds, the purity of the air, or its mixture with gaseous emanations more or less salubrious; and lastly, that serenity of the sky so important on account of the influence which it exercises not only on the development of organic tissues in vegetables and the ripening of fruits, but also on the ensemble of moral sensations which mankind experience in the different zones.

**Climax** (a gradual ascent), a rhetorical figure in which a series of propositions or objects are presented in such a way that the least impressive comes first, and there is a regular gradation from this to the most impressive or final.

**Climbing Perch,** an Indian species of perch which quits the water and makes its way for considerable distances over the land. It is even said to climb trees, whence its specific name.

**Clinch, Charles Powell,** an American poet and play-writer; born in New York city, Oct. 20, 1797. He died in New York, Dec. 16, 1880.

**Clinton,** city and capital of Clinton county, Ia.; on the Mississippi river, here crossed by three bridges, and on several trunk line railroads; 60 miles S. E. of Dubuque; is the trade center for a large section; manufactures iron bridges, boilers, saws, paper, wagons, and furniture; has large packing houses and railroad shops; and is the seat of Wartburg College (Luth.). Pop. (1920) 24,151.

**Clinton, De Witt,** an American lawyer and statesman; born in Little Britain, N. Y., March 2, 1769. He was successively United States Senator from New York; mayor of New York city; lieutenant-governor; candidate for President and governor. He was the chief originator of the Erie Canal (1817-1825). He died in Albany, N. Y., Feb. 11, 1828.

**Clinton, George,** Vice-President of the United States; born in Little Britain, Ulster Co., N. Y., July 26, 1739. He was a member of Congress in 1776, and voted for the Declaration of Independence, but was summoned to the army as Brigadier-General before it was prepared for signature. In 1777 he was elected governor and at the same time lieutenant-governor of the State of New York, which latter office was, on his acceptance of the other, conferred upon Mr. Van Cortlandt. He held the office of governor during the next 18 years. He was again chosen governor after spending five years in private life, in 1801, and in 1804 became Vice-President of the United States. He died in Washington, D. C., April 20, 1812.

**Clinton, Sir Henry,** a British general, born about 1738; was sent in 1775 with the rank of Major-General, to America, where he distinguished himself in the battle of Bunker Hill. He defeated the Americans at Long Island, but had to evacuate Philadelphia to Gen. Washington. In 1782 he returned to England. He died in Gibraltar, Dec. 23, 1795.

**Clinton, James,** an American military officer; born in Little Britain, Ulster Co., N. Y., Aug. 9, 1736. He accompanied Montgomery to Quebec in 1775, and was appointed Brigadier-General the following year. He afterward served against the Indians under Sullivan, in 1779, and was present at the surrender of Cornwallis. He died Dec. 22, 1812.

**Clio,** glory, renown, the muse of history and epic poetry, represented as bearing a half-opened roll of a book.

**Clive, Robert,** Lord Clive and Baron of Plassey, an English soldier and statesman; born in Shropshire, Sept. 29, 1725. His military successes established British predominance in India. Having been censured by Parliament for alleged wrongdoing in India he committed suicide Nov. 22, 1774.

**Cloaca,** a sewer, an underground drain or conduit. The Roman Cloaca Maxima is said to have been constructed about 588 B. C. and is still used in the drainage of Rome.

**Clock,** an instrument for measuring and indicating the time of day. The first measure of time was the sundial, followed by the hour-glass; next the clepsydra, or water clock. These have been in use 2,000 years. The next improvement was the substitution of a weight for the water. A pendulum was added about A. D. 1000. The anchor escapement, invented in 1666-1680, and the dead

beat escapement in 1700, gave a new impulse to clockmaking. There has been no material change in the principles on which clocks are made, except in the substitution of steel springs for weights and in the finer movements, and in the addition of the hair-spring to regulate still further the action of the escapement or pendulum, since 1700.

**Cloister,** the square space attached to a regular monastery or large church which forms part of the passage of communication from the church to the other parts of the establishment.

**Clootz, Jean Baptiste de,** a Prussian baron, one of the wildest and most violent actors in the early scenes of the French Revolution. He was born in Cleves in 1755. He was in 1792 sent to the French National Convention as deputy from the department of the Oise. He was among those who voted for the death of Louis XVI. Becoming an object of suspicion to Robespierre, he was arrested, and guillotined in 1794.

**Closure,** a rule in British parliamentary procedure adopted in 1887 by which, at any time after a question has been proposed, a motion may be made with the speaker's or chairman's consent "That the question be now put," when the motion is immediately put and decided without debate or amendment.

**Cloudberry,** or **Mountain Bramble,** a fruit found in America, Europe, and Asia of the same genus with the bramble or blackberry.

**Cloud Burst,** a sudden and violent rainfall, covering a limited territory and of brief duration. It is caused by the contact of a warm current of air, surcharged with moisture, with a cold current, the result being swift condensation and immediate precipitation of the water formed.

**Clouds,** formations owing their origin to aqueous vapor diffused in the atmosphere, supplied from the evaporation of the sea and other water surfaces, under the influence of solar heat, and diffused through the agency of winds. Air can absorb, or hold, only a certain amount of invisible vapor. Should the temperature, under this condition, be lowered, condensation takes place, and clouds are formed. Should the cooling continue, these globules unite and are finally precipitated in the form of rain, and, with sufficiently reduced temperature, as snow. Mists and fogs are simply incipient states of clouds, and when in contact with cold bodies produce, by deposition of moisture, dew, and hoar frost. Tropical countries generally have a dry and wet season, and there are other localities where rain may fall irregularly at all seasons. Fifty inches per annum may be regarded as a moderate rainfall, and below 20 inches a very light one, and generally insufficient for agricultural purposes.

**Cloud, St.,** a town of France, in the department of Seine-et-Oise, on the border of Paris. The historical associations of this place are intimately connected with the royalty of France. Its palace, which is very beautiful, was originally the property of the Dukes of Orleans, and was a summer residence of the Kings of France. Here, in 1799, Napoleon I. dismissed the Assembly of Five Hundred, and caused himself to be proclaimed first consul; and in 1830, Charles X. put his signature to the ordinances which cost him his throne.

**Clove Bark,** a name vaguely used for various aromatic drugs; some belonging to the clove, others to the cinnamon alliance.

**Clover,** or **Trefoil,** a genus of plants containing a great number of species, natives chiefly of temperate climates, and some of them very important in agriculture as affording pasture and fodder for cattle.

**Cloves,** a very pungent and aromatic spice, the dried flower-buds of a tree a native of the Molucca Islands, belonging to the myrtle tribe, now cultivated in Sumatra, Mauritius, Malacca, Jamaica, etc. Every part of the plant abounds in the volatile oil for which the flower-buds are prized.

**Clovis I.,** King of the Franks, usually called the founder of the French monarchy; born in 467. He was the son of Childeric I. and succeeded him in 481. During his reign he recovered from the Romans all their possessions in Gaul. He disgraced himself by the unjust and cruel measures he took to get rid of several of his kin-

dred, possible competitors for the crown. He died in Paris, in 511, after dividing his kingdom between his four sons. He was the first Christian king of France.



CLOVES.

**Clowes, William Laird,** an English naval critic and miscellaneous writer; born in London, Feb. 1, 1856. Was correspondent for various newspapers. His works include "The Naval Pocket Book," "Black America," etc. Knighted. Died, 1905.

**Clown,** the buffoon or practical jester in pantomime and circus performances.

**Club,** an association or number of persons combined for the promotion of some common object, whether political, social or otherwise. Well-established clubs have been organized in all the leading cities of the United States, and clubs exclusively for women have become numerous, one of the most notable pioneers in this line being the Sorosis of New York.

**Clubbing,** a diseased condition of plants of the cabbage family produced by the larvæ of insects, consisting in the lower part of the stem becoming swollen.

**Club Foot,** a short, deformed foot. In 1831 Dr. Stromeyer cured a man of this defect by dividing the tendons of the contracted muscles with a very thin knife. There are three principal forms: When the foot is turned inward. When it is turned outward. When the patient can only put the toes on the ground.

**Clugny,** or **Cluny,** a town of France in the department of Saone-et-Loire, 46 miles N. of Lyons. The monks of the order of Cluny were the first branch of the order of Benedictines. The Benedictines having become very lax in their discipline, St. Odo, abbot of Cluny in 927, not only insisted on a rigorous observance of the rules by the monks under him, but introduced new ceremonies of a severer nature. The order was abolished in 1790.

**Cluricaune,** in Irish mythology, an elf of evil disposition who usually appears as a wrinkled old man, and has knowledge of hidden treasures.

**Cluseret, Gustave Paul,** a French officer and Communist; born in Paris, June 13, 1823; he came to the United States soon after the breaking out of the Civil War, and after serving on General McClellan's staff became a Brigadier-General. Subsequently he returned to Paris, and was War Minister of the Commune in April, 1871. From Paris he fled to England and Mexico, and was condemned to death by military tribunal in 1872. He was, however, pardoned and allowed to return to Paris in 1880. He died in Toulon, Aug. 23, 1900.

**Clustered Column,** in architecture, a pier which appears, to consist of several columns or shafts clustered together.

**Clutha,** the largest river in New Zealand, in the S. part of the South Island. It receives the waters of Lakes Hawea, Wanaka, and Wakatipu, and flows in a S. E. direction, having a length of 150 miles. It is called also Molyneaux.

**Clyde,** a river of Scotland, which has its sources amid the hills that separate Lanarkshire from the counties of Peebles and Dumfries and

forms an extensive estuary before it enters the Irish Sea. The Clyde, by artificial deepening, has been made navigable for large vessels up to Glasgow.

**Clymer, Ella Dietz,** an American poet; born in New York. She began her career as an actress in 1872; in 1881 she abandoned the stage. She was one of the founders of the "Sorosis" Society, and its president in 1889.

**Clymer, George,** an American patriot; born in Philadelphia in 1739. He was prominent in public affairs prior to the Revolution, and became one of the first Continental treasurers. He was chosen in 1776 to succeed a member of the Continental Congress who had refused to sign the Declaration of Independence, to which he promptly affixed his signature. In 1787 was a member of the convention that framed the Constitution of the United States. He was a member of the First Congress of the United States. He died in Moinsville, Pa., Jan. 23, 1813.

**Coach,** a large, close, four-wheeled vehicle, generally constructed to carry passengers inside and outside; used for purposes of State for pleasure, or for traveling. Italy, France, Spain, and Germany all claim the honor of having invented coaches. In the first half of the 19th century, the greater part of the passenger traffic of the United States was by coaches.

**Coadjutor,** a Latin term, nearly synonymous in its original meaning with assistant. The term is especially applied to an assistant bishop.

**Coagulation,** the act or process of being coagulated, or of changing from a liquid to a curd-like semi-solid state, produced without evaporation and without crystallization.

**Coahuila,** a State of Mexico, separated from Texas by the Rio Grande, has an area of 87,802 square miles, partly mountainous. The climate is healthy, though extremes of heat and cold are usual. The state is rich in minerals. It has a valuable pasturage, and in many parts a most fertile soil; but no district of Mexico is so little known, or has been less developed. Pop. (Est.) 400,000; capital, Saltillo; pop. (Est.) 37,000.

**Coal,** a solid mineralized vegetable matter that can be used for fuel. The entire coal area of the United States is about 200,000 square miles. But though the coal measures of the States are of vast extent there has been doubt whether the amount of workable coal is as great as has been stated. The coal areas of the United States are seven in number. They are: The Massachusetts and Rhode Island area, the Allegheny area, the Michigan area, the Illinois, Indiana, and Western Kentucky area, the Iowa, Missouri, Kansas, Arkansas, and Texas area, those of the Rocky mountains and of the Pacific Coast. Excluding these last from the calculation, we have a total area of 191,200 square miles underlaid by coal-bearing strata. Of the two generally recognized classes of coal, anthracite and bituminous, the former composes the whole of the coal of the Massachusetts and Rhode Island area, and of a part of the Pennsylvania and Colorado. With slight exceptions, bituminous coal occupies the rest of the districts named. The greatest development of workable coal strata is in the Allegheny mountains and to the W. of them, extending continuously from Pennsylvania and Ohio to Alabama.

Commercially speaking, the anthracite division may be said to consist of Pennsylvania alone, although a small amount of anthracite coal is mined in Colorado. The original coal beds of New England have been metamorphosed into graphite and graphitic coal. This area is confined to Eastern Rhode Island, and the counties of Bristol and Plymouth, Mass. The product mined from the beds requires a considerable degree of heat for combustion, and can be used only with other combustible material or under an intense draft or blast. The entire annual output is but a few thousand tons. The anthracite region of Pennsylvania as a whole, has a maximum length of about 115 miles, a maximum breadth of about 40 miles; area about 1,700 square miles; but the area underlaid by workable coal beds is only about 470 square miles.

The bituminous coal areas of the United States may for convenience be grouped into seven divisions: The



1 TOURMALINE (New York)



2 TOURMALINE (Ural)



3 CHRYSOPRASE



4 EMERALD (Peru)



5 CHRYSOBERYL (Ural)



6 TURQUOISE



7 DIAMOND



8 SPINEL RUBY



9 GARNET



10 TOPAZ (Ural)



11 AQUAMARINE (Ural)



12 LAPIS-LAZULI



13 BLOODSTONE





14 TOPAZ (Brazil)

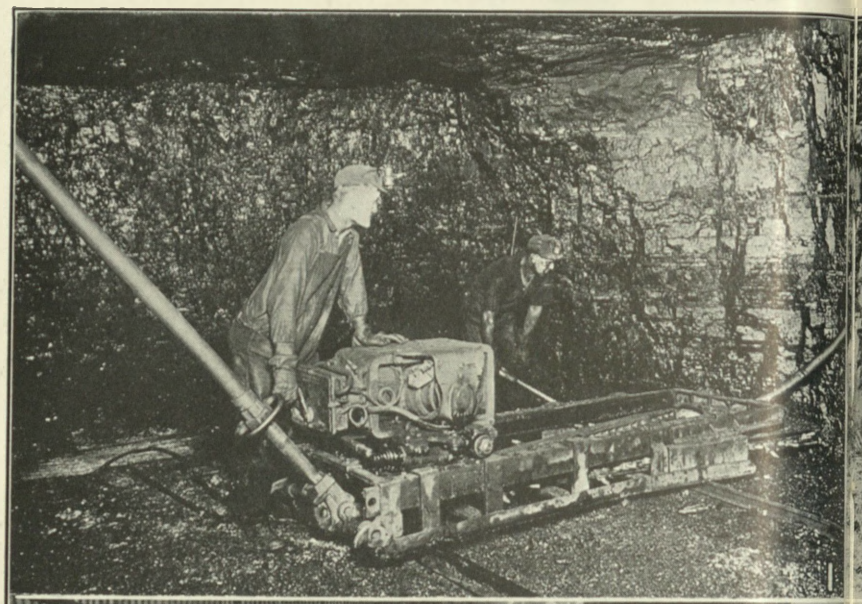


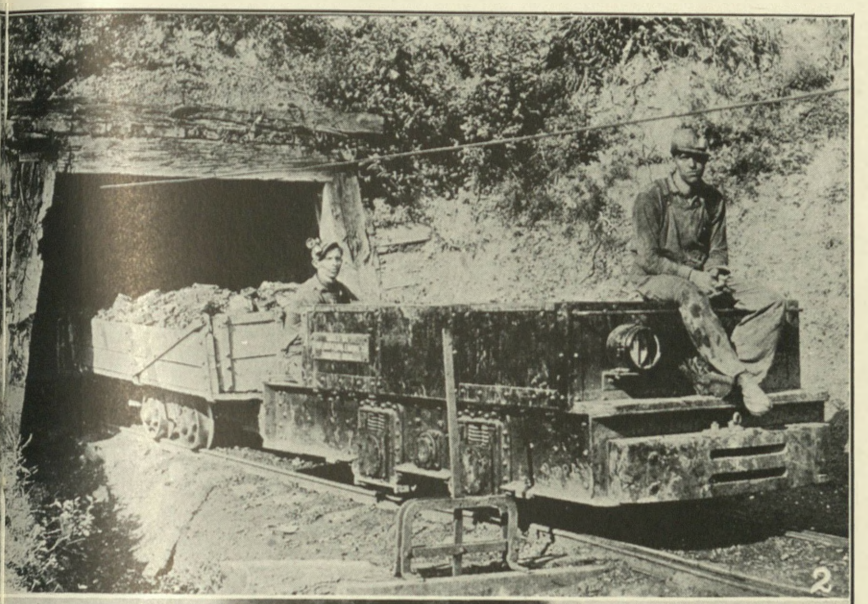
15 OPAL

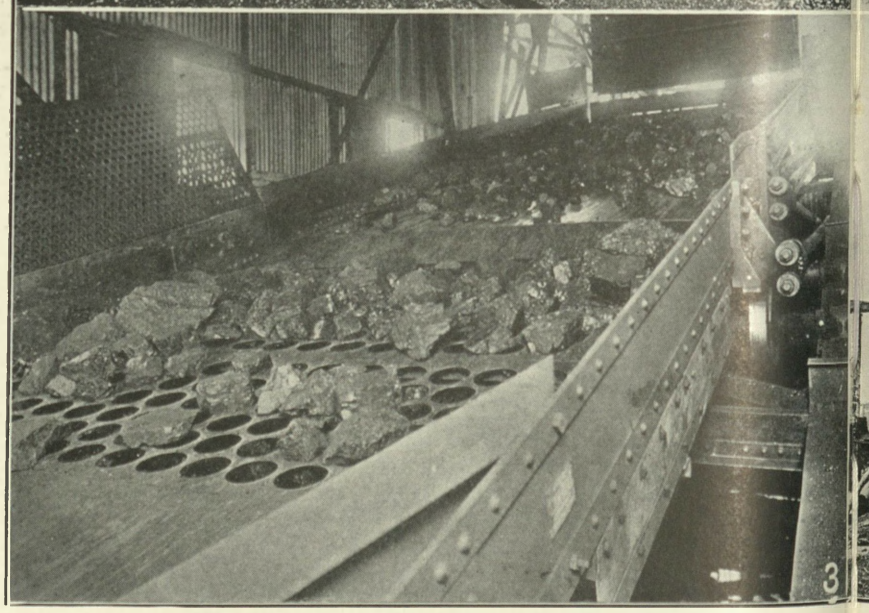
16 AMETHYST

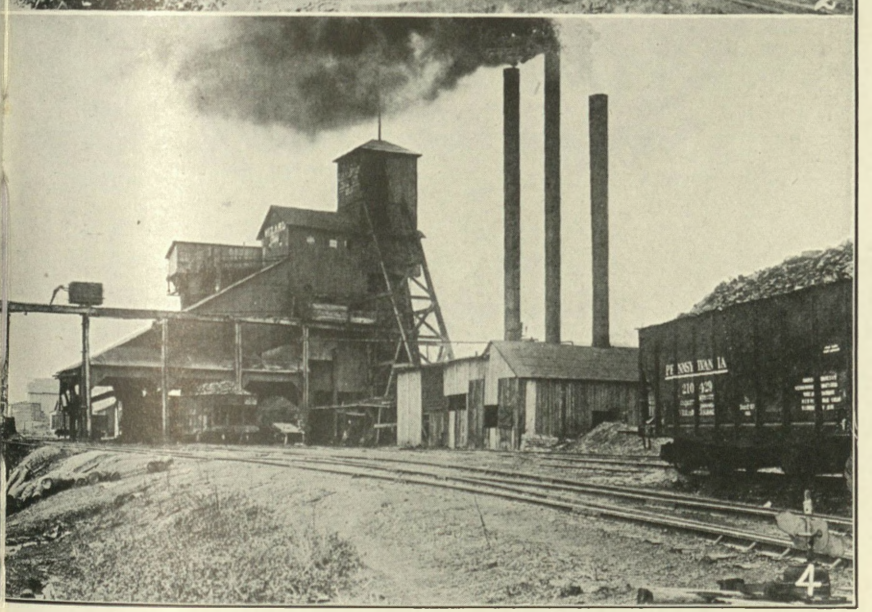
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PRECIOUS GEMS AS THEY ARE FOUND





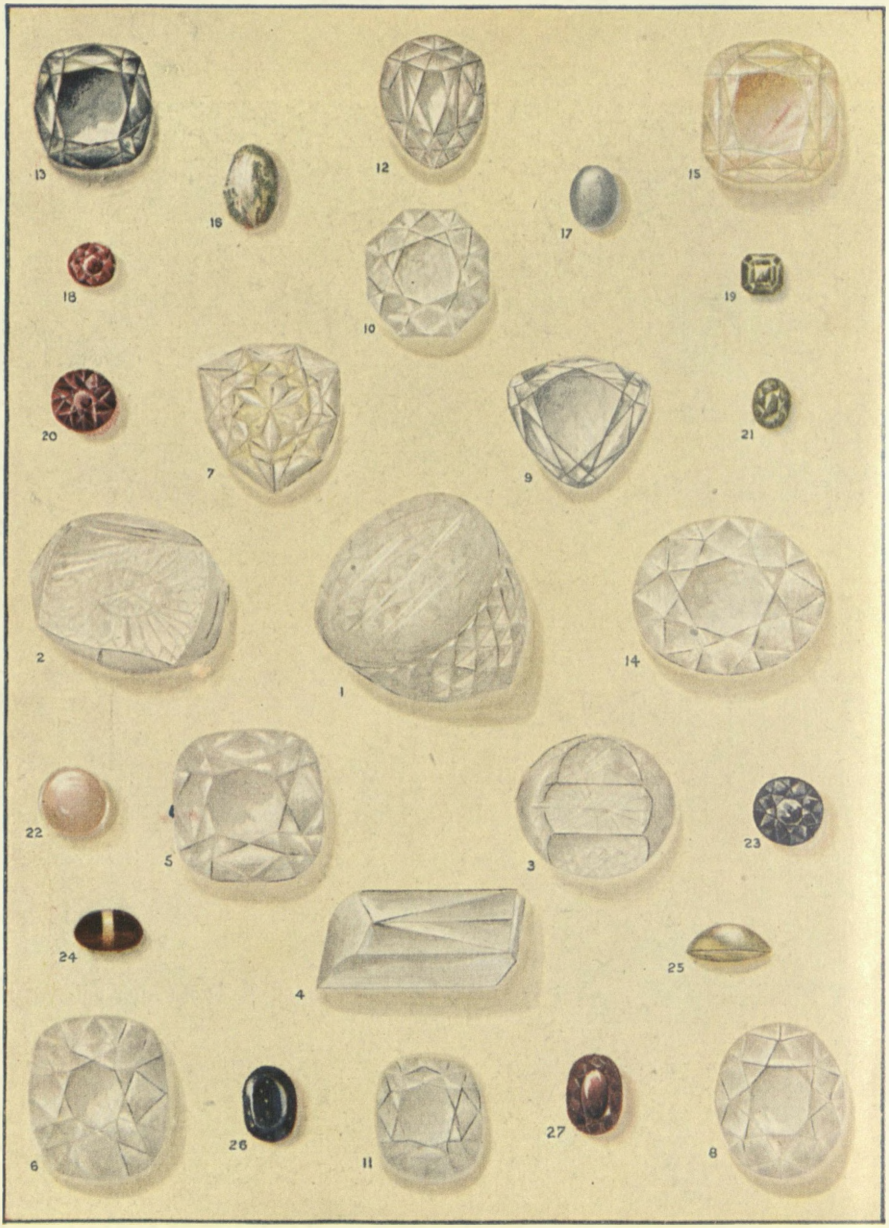




1—Mining machine, electrically operated.
3—Shaker screen for sorting coal according to size.

2—Electric locomotive and coal car train leaving mine.
4—Coal powerhouse and tipple.

Photos by Brown Bros.




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## FAMOUS GEMS AND PRECIOUS STONES

### DIAMONDS

1. The Great Mogul (Russia), 279 carats (rough, 793 carats); 2. The Koh-i-Noor (Great Britain), before recutting, 186 1-16 carats; 3. The Orlow, or Orloff (Russia), 194 carats; 4. The Shah of Persia (Russia), 95 carats; 5. The Regent (France), 136½ carats (rough, 410 carats); 6. The Star of the South (Brazil), 124 carats; 7. The Grand Duke of Tuscany (Austria), 139½ carats; 8. The Pigott (England), 82 carats; 9. The Nassac (England), 48 carats; 10. The Pacha of Egypt (Egypt), 49 carats; 11. The Pole Star (Russia) 40 carats; 12. The Sancy (France) 33 carats; 13. The Hope (England) 44 carats; 14. The Koh-i-Noor (England), after recutting, 103¾ carats; 15. The Tiffany Yellow Diamond (United States).

### PRECIOUS GEMS

16. Hungarian Opal; 17. Persian Turquoise; 18. Oriental Ruby; 19. Emerald; 20. Siam Ruby; 21. Olivine; 22. Oriental Pearl; 23. Sapphire; 24. Cat's Eye; 25. Moonstone; 26. Lapis-Lazuli; 27. Amethyst.

Triassic area, composed chiefly of the Richmond basin, in Virginia and the Deep River and the Dan River fields, in North Carolina. No extensive mining operations are now carried on in this area. The Appalachian field, immediately W. of the E. border of the Appalachian range, and extends from New York on the N. to Alabama on the S., its direction being N. E. and S. W.; length, about 900 miles; width, from 30 to 180 miles, the best and most productive beds being those of the Pittsburg district and of West Virginia. The N. bituminous area: All in Central Michigan. The coal here found is used mostly for local supply. The central area: Three-fourths are in Illinois, less than one-sixth in Indiana, and about one-twelfth in Western Kentucky. The W. field: The most extensive mining operations have been carried on in Iowa and Missouri; its area is greater than that of any other one coal field in the United States. The Rocky Mountain and the Pacific: California, Oregon, and Washington.

In 1923, 83,338,401 tons of anthracite coal was produced in the United States, and 486,964,286 tons of Bituminous coal. In the same year 55,487,000 tons of coke were made. In 1922, the number of coal mine fatalities were 1,971 out of 848,932 men employed.

The export of Anthracite coal in 1924 was 3,930,794 tons, Bituminous, 15,953,879 tons. During same period 149,581 tons of Anthracite coal was imported while the Bituminous quantity was 5,267,934.

The world's production of coal according to statistics furnished by the United States Geological Survey was in 1923, 1,337,000,000 metric tons, of which the United States produced 45.3 per cent.

The approximate yearly production, in long tons, of the chief coal mining countries of the world by the latest data, statistics of 1923, is as follows: The United States, 570,302,687 tons of Anthracite and Bituminous; Great Britain, 282,970,535; Germany, 118,248,735 lignite and 62,224,535 coal; France, 861,435 lignite and 37,682,235 coal; Poland, 36,097,997; Russia in Europe and Asia, 11,907,393; Japan, 27,800,000; British India, 19,019,000; China, 22,200,000; Union of South Africa, 10,809,501; Australia, 12,300,000; Canada, 3,246,378 lignite and 11,254,007 coal.

The unmined coal in the coal producing countries of the world has been estimated at more than 7,685,000,000,000 tons, mostly softer than Anthracite which is found in very few locations outside of Eastern Pennsylvania.

**Coal Gas,** a mixture of gases produced by the destructive distillation of coal at regulated temperatures. It is used in lighting streets, houses, etc., and for cooking and heating purposes. Coal gas is colorless and has a disagreeable smell.

Poisoning by coal gas is known only as an accident. Occasionally sudden fatal consequences ensue among workmen from exposure to a sudden rush of undiluted gas from gasometers and mains. More commonly, slowly fatal cases result from the gas-tap in a bedroom being left open carelessly.

**Coaling Stations,** depots established by maritime governments at various important points throughout the world, where the ships of the navy may obtain supplies of coal. The utility of such stations, when properly fortified, as points of refuge, defense, and repair for warships in the event of war can hardly be over-estimated.

**Coal Tar,** a thick, sticky, dark-colored substance, produced in the destructive distillation of bituminous coal. It is of commercial value in the production of aniline and its dyes.

See ANILINE.

**Coan, Titus,** an American missionary; born in Killingworth, Conn., Feb. 1, 1801. After spending several months on a dangerous expedition in Patagonia, he went to the Sandwich Islands, occupying the Hilo station 47 years, and in that time converting 14,000 natives. He died at Hilo, Hawaii, Dec. 1, 1882.

**Coast and Geodetic Survey, United States,** a branch of the Treasury Department charged with the survey of the Atlantic, Gulf, and Pacific coasts of the United States, including the coast of Alaska; the survey of rivers to the head of tide-

water or ship navigation; deep-sea soundings, temperature and current observations along the coasts and throughout the Gulf Stream and Japan Stream flowing off from them; magnetic observations and gravity research; determinations of heights by geodetic leveling, and of geographical positions by lines of transcontinental triangulation, which with other connecting triangulations and observations for latitude, longitude, and azimuth, furnish points of reference for State surveys and connect the work on the Atlantic coast with that on the Pacific.

**Coast Defense,** a system of fortifications with auxiliary mines and torpedoes to protect a country from hostile attack or occupation on its coast lines.

**Coast Guard,** a British force formerly under the customs department, and intended only to prevent smuggling, but now organized also for purposes of defense and governed by the admiralty.

**Coati,** or **Coati-Mondi,** a name of South American plantigrade carnivorous mammals, belonging to the bears, but recalling rather the raccoon or civet, and having a long proboscis or snout.

**Coatzacoalcos,** a river of the Isthmus of Tehuantepec in Mexico; is navigable for large vessels for 30 miles, and is part of a route surveyed for an inter-oceanic canal

**Cobalt,** a town in the Nipissing district of Ontario, Canada; on Lake Nipissing and the Northern Ontario railroad; 10 miles S. of New Liskeard, and about 300 miles N. of Toronto; is the center of the Dominion's newly-developed silver-mining region. The average ores carry 3,000 to 4,000 ounces of silver to the ton of 2,000 lbs. The town was settled early in 1906, was wiped out by fire, and was rapidly rebuilt.

**Cobb, Howell,** an American statesman; born in Cherry Hill, Ga., Sept. 7, 1815. In 1843 was elected to Congress as a Democrat. He served eight years and was Speaker of the House one term. Elected governor of Georgia in 1851, he returned to Congress in 1855, and was made Secretary of the Treasury by President Buchanan in 1857, resigning in 1860 to urge secession. Died, 1868.

**Cobb, Irvin Shrewsbury,** an American author and humorist. Born, 1876. Written many humorous books.

**Cobb, Sylvanus,** an American novelist; born in Waterville, Me., 1823. He was a most prolific story-writer. He died in Hyde Park, Mass., July 2, 1887.

**Cobden, Richard,** an English politician, the "Apostle of Free Trade," born in Sussex, June 3, 1804. Through his life he rigidly advocated non-intervention in the disputes of other nations, and maintaining it to be the only proper object of the foreign policy of England to increase and strengthen her connections with foreign countries in the way of trade and peaceful intercourse. He died in London, April 2, 1865.

**Cobden Club,** an association formed about a year after the death of Mr. Cobden for the purpose of encouraging the growth and diffusion of those economical and political principles with which Mr. Cobden's name is associated.

**Cobijai,** or **Puetro La Mar,** a seaport formerly belonging to Bolivia, now in the territory of Antofagasta, Chile.

**Coble,** or **Cobble,** a low, flat-floored boat with a square stern, used in salmon-fishery.

**Coblentz,** or fortified town of Germany, capital of Rhenish Prussia, and connected by a pontoon-bridge over the Rhine with the fortress of Ehrenbreitstein, this, along with its other fortifications, rendering it one of the strongest places in Germany, and capable of accommodating 100,000 men. Pop. (1919) 57,617.

**Cobra de Capello,** that is, "serpent with a hood"; the Portuguese name of an East Indian serpent, and of an African serpent of the same genus, the asp, both reptiles of the most venomous nature. The species of the viper kind are all remarkable for the manner in which they spread out or distend the sides of the neck and head when disturbed or irritated.

**Coburg,** the name of a family in Germany, dating from the 5th century, noted for intermarriages with

royal houses, especially during the 19th century.

**Coburg,** or **Koburg,** a town of Germany, capital of the duchy of Saxe-Coburg-Gotha. On an eminence overhanging the town is the ancient castle or fortress, from which extensive views are obtained. It is now converted into a museum, with extensive collections of various kinds, including relics and writings of Luther, who resided here for three months in 1530 and wrote some of his works. Pop. (Est.) 26,000.

**Coca,** the dried leaf of a shrub, 4–8 feet high, growing wild in Peru, and cultivated there on the Andes, between 2,000 and 5,000 feet high. It constitutes a stimulant which tends to enslave those who use it to a greater extent, it is said, than opium in China, or strong liquor.

**Cocaine,** an alkaloid obtained from coca leaves, and surgically employed as a powerful local anæsthetic.

**Cocculus Indicus,** a popular name given to a species of plant which furnishes certain dried berries constituting an article of commerce. They are imported from the East Indies. It has been used in form of ointment in certain skin diseases.

**Cochabamba,** a central department of Bolivia, with offshoots of the Eastern Cordilleras, and extensive plateaus. Agriculture and cattle-raising are the chief occupations. Area, 25,288 square miles; pop. (1915, est.) 534,901.

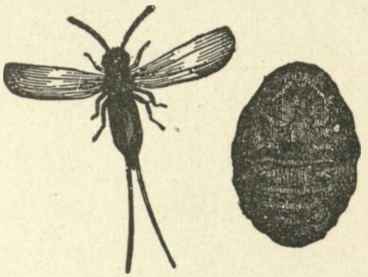
**Cocheprat, P. L. A.,** a French naval officer; born in 1855; entered the navy in 1871; became a captain in 1898, rear-admiral in 1907, and vice-admiral in 1911; is an expert in submarine warfare; organized the transportation of the immense number of troops through the Mediterranean to Gallipoli in the early part of the World War. He was a member of the French War Mission to the United States in 1917.

**Cochin,** a seaport of Hindustan. Its harbor, though sometimes inaccessible during the S. W. monsoon, is the best on this coast. Cochin was one of the first places in India visited by Europeans. In 1663 the Dutch took the place, in 1795 the British. Pop. (Est.) 22,000.

**Cochin China,** a country forming part of the peninsula of Southeastern Asia, and generally regarded as comprising the whole of ANAM and Lower or French Cochin, China. The territory covers 21,980 square miles, and in 1921 had an estimated pop. of 3,400,000.

**Cochin China,** a term applied to a variety of the domestic fowl, imported from Cochin China.

**Cochineal,** a dye-stuff employed in dyeing scarlet and crimson; consists of the bodies of the females of a species of Coccus, which feeds upon plants of the Cactus family. The cochineal insect is a small creature, a pound of cochineal being calculated to contain 70,000 in a dried state.



COCHINEAL INSECT.
Female and Male, the latter with wings.

**Cochrane, Thomas,** 10th Earl of Dundonald; a British naval officer; born in Amesfield, Scotland, Dec. 14, 1775. In 1814 he was accused of conspiring to circulate a false report of Napoleon's death for speculative ends, and though he protested his innocence he was imprisoned for a year, fined, and was expelled from the navy and the House of Commons. In 1832 he was cleared of the charges brought against him in 1814, and was restored to the Order of the Bath and to the English navy. While in disgrace in England he performed great exploits as commander of the Chilian navy in Chile's war of independence. He died in Kensington, England, Oct. 31, 1860.

**Cock,** the full grown male of the domestic fowl, colloquially known as the "rooster" It is believed

that the race was first domesticated in the Eastern countries, and gradually extended to the rest of the world.

**Cockade,** a plume of cock's feathers, worn by Americans in the Revolution as a patriotic emblem. A bow of colored ribbon was adopted for the cockade in France, and during the French revolution the tricolored cockade — red, white, and blue — became the National distinction. National cockades are now to be found over all Europe.

**Cockatoo,** a genus of birds of the parrot family, but distinguished from true parrots by the greater height of the bill, and its being curved from the base, and by the lengthened, broad, and rounded tail. The true cockatoos are also all of generally whitish plumage, but often finely tinged with red, orange, and other colors, or mixed with these colors in more brilliant displays.

**Cockatrice,** a fabulous monster anciently believed to be hatched from a cock's egg. It is often simply another name for the basilisk.

**Cockburn, Sir Alexander,** an English jurist; born Dec. 24, 1802; studied at Cambridge; was called to the bar in 1829, and soon became distinguished as a pleader before Parliamentary committees. In 1847 he became member of Parliament for Southampton in the Liberal interest; became Solicitor-General and was knighted in 1850; was made Chief-Justice of the Common Pleas in 1856; and Lord Chief-Justice in 1859. He represented Great Britain at the Geneva arbitration in the "Alabama" case. He died Nov. 20, 1880.

**Cockburn, Sir George,** a British naval officer; born about 1772. He entered the navy in early youth, and about 1812 obtained the rank of rear-admiral. He took part in the capture of Washington City in 1814 and conveyed Napoleon to Saint Helena in 1815. He died in 1853.

**Cock Chafer,** the popular name of a beetle in England. It crawls awkwardly on the ground, and when it flies does so heavily and with a whirring hum.

**Cocker,** a dog of the spaniel kind, allied to the Blenheim dog, used for raising woodcocks and snipes from their haunts in woods and marshes.

**Cockerell, Charles Robert,** a British architect; born in 1788. His excavation of the Temple of Zeus at Ægina, in 1811, contributed largely to the British Museum. He died in 1863.

**Cock Fighting,** an amusement practiced in various countries, first perhaps among the Greeks and Romans. It is a favorite sport in the island of Cuba, in the Philippines, and in some of the United States, though in the latter it is now generally prohibited by local laws.

**Cockle,** the popular name of the shells classed by naturalists under the genus Cardium. Their appearance is familiar. The most common one is found in sandy bays near low water.

**Cockney,** a nickname for a London citizens. The word is often, but not always, employed slightingly as implying a peculiar limitation of taste or judgment.

**Cock of the Plains,** a large North American species of grouse, inhabiting desolate plains in the W. States.

**Cock of the Rock,** a South American bird of a rich orange color with a beautiful crest, belonging to the manakin family.

**Cock of the Walk,** a phrase applied to a dominant bully or master spirit.

**Cock of the Woods,** See CAPERCAILZIE.

**Cockpit,** in a ship of war, the name still given to the compartment in the lower part of the ship where the wounded are attended to during action.

**Cockroach,** an insect common in houses, particularly in seaport towns. It is often called the black beetle, an erroneous name, for it is not a beetle at all, but an orthopterous insect.

**Cockscomb,** the comb of a cock, being a sort of ensign or token which the fool was accustomed to wear. Also a name sometimes given to certain flowers which are astringent and are used as a medicine in Asia.

**Cock's-foot Grass,** a genus of grasses. In the United States this grass is called orchard grass, and is extensively cultivated. To this genus belongs also the tussac grass.

**Cocles, Horatius,** a hero of ancient Rome, who alone, in 506 B. C., opposed the whole army of Porsenna at the head of a bridge, while his companions were destroying it behind him. When this was effected, Cocles, though wounded by the darts of the enemy, and impeded by his arms and armor, leaped into the Tiber and swam safely across.

**Cocoanut,** a woody fruit of an oval shape, from 3 or 4 to 6 or 8 inches in length, covered with a fibrous husk, and lined internally with a white, firm, and fleshy kernel. The tree which produces the cocoanut is a palm, from 40 to 60 feet high. The trunk is straight and naked, and surmounted by a crown of feather-like leaves. The nuts hang from the summit of the tree in clusters of a dozen or more together. This palm is a native of Africa, the East and West Indies, and South America, and is now grown almost everywhere in tropical countries. Food, clothing, and shelter are among the products of this tree.

**Cocoon,** the silken sheath spun by the larvæ of many insects in passing into the pupa or resting stage. The most typical and perfect cocoons are those of many moths, a familiar example being that of the silkworm.

**Cod,** a genus of fishes. The most interesting of all the species is the common or Bank cod. An extent of about 450 miles of ocean, laving the chill and rugged shores of Newfoundland, is the favorite annual resort of countless multitudes of cod, which visit the submarine mountains known as the Grand Banks to feed on the crustaceous and molluscous animals abundant in such situations.

The liver of the cod, when fresh, is eaten by many with satisfaction, but it is more generally reserved by fishermen for the sake of the large quantity of fine limpid oil which it contains. This is extracted and forms the well-known and highly valued cod liver oil.

Among American species there have been enumerated 10 that are taken to the New York market, and are caught on the coasts adjacent. The importance of this fishery and the great national interests which it involves, has made it a fruitful source of diplomatic discussion, and led to the establishment of various regulations, to which all are obliged to conform who participate in its advantages.

**Coddington, William,** the founder of the colony of Rhode Island; born in England, in 1601, and arrived in Massachusetts in 1630. He remained in Boston for several years, but not being able to agree with the authorities of the colony, be removed in 1638 to Aquidneck, or Rhode Island, where he founded a colony to be governed "by the laws of the Lord Jesus Christ." It was soon found necessary to abandon this vague scheme, and in 1640 he himself was chosen governor, and in 1647 aided in the formation of a regular body of laws. He was unable to secure the reception of Rhode Island into the colonial confederacy. In 1674 and 1675 he was again elected governor. He died in 1678.

**Code,** a systematic collection or digest of laws, classified and simplified.

In the United States.— The acts of Congress have been codified and are spoken of as the United States Code, and in each State the acts of the different legislatures are usually annually printed and periodically codified. Both the State and Federal authorities have court and legislative reporters for aiding in the codification of the laws.

**Code, Cipher,** a system of arbitrary words to designate prearranged or predetermined words, figures or sentences.

**Code, Civil,** or **Code Napoleon.** One of the first labors of Bonaparte, when consul, was to give France a code. Under his rule the adoption of the "Code Napoleon" was made obligatory on all the countries subject to the French. After the battle of Leipsic, in 1813, which freed Germany from the power of France, it ceased to be obligatory in the German States, but it continued to influence considerably their legislation. At present this code is recognized in the kingdom of Belgium (with some modifications), in the grand-duchy of Baden, in the kingdom of Italy, and elsewhere in Europe. In the United States it was a model for the code of Louisiana.

**Codex,** a roll or volume, specially used in compound terms, as Codex Justinianus, Code of Justinian, Codex Theodosianus, Code of Theodosius. In Biblical criticism a manuscript of any portion of the New or Old Testament, especially of the former.

**Codicil,** a supplement to a will, whereby anything omitted is added, or any change demanded by the altered circumstances of the testator or the beneficiaries is effected.

**Codling Moth,** a small moth which infests apple trees. In the Northern States it flies in May, laying its eggs in the calyx after the blossoms fall; in a few days the larva hatches, in three weeks it becomes fully grown.

**Cod-liver Oil,** an oil obtained from the liver of the common cod.

**Codman, John,** an American sea-captain and miscellaneous writer; born in Dorchester, Mass., 1814. Died in Boston, Mass., April 6, 1900.

**Codrington, Sir Edward,** an English naval officer; born in Gloucestershire in 1770. He entered the navy in 1783; obtained a gold medal for his services at the battle of Trafalgar, and was afterward actively employed both in the Peninsular and second American wars. In 1827 he commanded the united squadron that overthrew the Turkish fleet in the battle of Navarino. From 1832 to 1837 he was member of Parliament. He died in London in 1851.

**Cody, William Frederick,** a former United States government scout; born in Scott county, Ia., Feb. 26, 1845; better known as "Buffalo Bill," a name earned while employed by the Kansas Pacific railway to furnish meat for its laborers, when he slaughtered 4,280 buffaloes in 18 months. In 1872 he was elected to the Nebraska Legislature, and in 1883 organized the "Wild West Show," which has been seen all over the United States, as well as in many foreign countries. He was employed frequently by the Government as a guide and scout in the Indian country. He died Jan. 10, 1917.

**Coe College,** a co-educational institution in Cedar Rapids, Ia.; organized in 1881, under the auspices of the Presbyterian Church.

**Cœle-Syria,** (that is, "Hollow-Syria"), the large valley lying between the Lebanon and Anti-Lebanon mountain ranges in Syria. Near its center are the ruins of Baalbec.

**Cœnobites,** the name given to those monks who live together, in contradistinction to anchorites or hermits, who live in a solitary fashion.

**Cœur de Lion,** a title given to several historical personages, as Richard I. of England; so-called from the prodigies of personal valor performed by him in the Holy Land; Louis VIII. of France, frequently called Le Lion; and Bolaslas I. of Poland, also called "The Intrepid."

**Coffee,** the seed of an evergreen shrub, which is cultivated in hot climates, and is a native of Abyssinia



COFFEE PLANT AND KERNEL.

and of Arabia. This shrub is from 15 to 20 feet in height, and belongs to the Rubiaceæ. The fruit is of an oval shape, about the size of a cherry, and

of a dark-red color when ripe. Each of these contains two cells, and each cell a single seed, which is the coffee as we see it before it undergoes the process of roasting.

It was not till 1774 that the planters of Brazil, now the greatest producers of coffee in the world, began its cultivation. It is now widely cultivated in South and Central America.

Since the middle of the 18th century both the culture and consumption of coffee have continually increased. The principal supply of the United States is derived from Brazil, which furnishes 75 per cent. of the whole import. It is known in commerce as "Rio." Coffee acts as a nervous stimulant, a property which it owes mainly to the alkaloid Caffeine. The consumption of coffee within the United States in 1923 was 1,463,372,220 pounds. This represented a per capita consumption of 13.30 pounds.

**Coffee Bug,** an insect of the coccus family, very destructive in coffee plantations.

**Coffee House,** a house of entertainment where persons are supplied with coffee and other refreshments.

**Cofferdam,** a water-tight inclosure formed by piles driven into the bottom of a river and packed with clay, etc. It is used as a dam while laying bare the bottom of the river.

**Coffin,** the box or chest in which corpses are inclosed before being committed to the ground. Coffins were in use in Egypt at a remote period of antiquity. But among the classical nations the later practice was to burn the dead and deposit the ashes in an urn.

**Coffin, Charles Carleton,** an American novelist and lecturer; born in Boscawen, N. H., July 26, 1823; began life as a civil engineer; afterward gave his attention to telegraphy. In 1851 he began to write for the Boston papers; and during the Civil War and the Austro-Prussian War of 1866 was war correspondent. He died in Brookline, Mass., March 2, 1896.

**Coffin, Levi,** an American philanthropist; born near New Garden, N. C., Oct. 28, 1798. He was a farmer's boy and early evinced interest in the negro's welfare. Proving successful in business, he actively aided slaves to gain freedom, largely through the "underground railroad." He died in Avondale, O., Sept. 16, 1877.

**Coghlan, Joseph Bullock,** a naval officer, born in Kentucky, received an appointment from Illinois to the Naval Academy 1860-3, and rose by successive stages to rear-admiral in 1902. In the Spanish American War, he commanded the Raleigh during the operations in the Philippines, 1898. He became commander of the North Atlantic station, 1902, and retired in 1906. He died Dec. 5, 1908.

**Cognac,** a town in France, department of Charente; 22 miles W. of Angouleme. It is famous for its brandy. Pop. 19,500.

**Cohoes,** a city in Albany county, N. Y.; at junction of the Hudson and Mohawk rivers; on the Erie canal and several railroads; 9 miles N. of Albany; has a fine waterfall, and cotton, woolen, and knit goods, machinery, paper, and tube plants. Pop. (1910) 24,709.

**Coimbra,** capital of the Portuguese province of Beira, on a hill above the Mondego river, here crossed by a stone bridge, 135 miles N. N. E. of Lisbon. Coimbra was the capital of Portugal for about two centuries and a half from its erection into a kingdom in 1139. The University of Coimbra, the only one in Portugal, was originally established at Lisbon in 1288, but was permanently transferred here in 1537; attached to it are a museum, an observatory, a botanical garden and a library of over 60,000 volumes. Pop. (1911) 20,581.

**Coin,** a piece of metal on which certain characters are stamped by authority, giving the piece a certain legal current value. Homer speaks of brass money, 1184 B. C. The invention of coin is ascribed to the Lydians, whose money was of gold and silver. Julius Cæsar first obtained permission of the Senate to place his portrait on the coins, and the example was soon followed. The Britons and Saxons coined silver.

United States gold coins are nine-tenths fine; the silver coins, nine-tenths fine; the copper-nickel coins, such as the 5-cent piece, are one-fourth nickel and three-fourths copper; the bronze coins are 95 per cent.

copper and 5 per cent. tin and zinc. The alloy in the gold coins is silver and copper; in the silver coins, copper. It is a felony to counterfeit coins.

**Coinage,** the act or process of coining money. In the United States there is free and unlimited coinage of gold; that is, standard gold bullion may be deposited at the mints in any amount, to be coined for the benefit of the depositor, without charge for coinage; but when other than standard bullion is received for coinage a charge is made. The depositor receives in gold coin the full value of the gold in his bullion, less such charges as are specified by law.

**Coke,** an impure form of amorphous carbon, containing earthy matter and often sulphur. It is formed in the manufacture of coal gas, being the residue left after all the gas has been distilled from the coal. The production in the United States in 1923 was 55,487,000 short tons, valued at the ovens at over $120,000,000.

**Coke, Sir Edward,** a great English jurist and author of law books, the son of a Norfolkshire gentleman; born in 1551; died in 1634.

**Colbert, Jean Baptiste,** a French statesman and financier, born in Rouen in 1619. He died in 1683. His son, also named Jean Baptiste, born in 1651, succeeded his father as minister of marine, and minister of the king's household. He raised the French navy to its highest power, and in 1684 he led in person the maritime expedition against Genoa. He died in 1690.

**Colburn, Zerah,** an American mathematical prodigy; born in Cabot, Vt., Sept. 1, 1804; displayed remarkable powers of calculation. At the age of 6 he answered correctly such questions as "How many hours in 1811 years" in 20 seconds; and a few years later complicated problems were solved with equal rapidity. He served as a Methodist preacher and was Professor of Languages in Norwich University, Vermont, where he died March 2, 1840. His remarkable faculty disappeared as he grew to manhood.

**Colchicum,** the meadow saffron, found in meadows and pastures of the north temperate regions.

**Colchicum Corm,** the fresh corm of common meadow saffron, which is collected about the end of June, and stripped of its coat, sliced transversely and dried. The taste is bitter and acrid.

**Cold,** the term by which is signified a relative want of sensible heat. Great or prolonged atmospheric cold is a most powerful depressing agent, and is a fruitful cause of disease and even of death.

**Colden, Cadwallader,** an American scientist and colonial official; born in Dunse, Scotland, Feb. 17, 1688; emigrated to America in 1708. He devoted himself to botany and astronomy. Was surveyor-general of New York and president of the Council. He sided with the crown in the contest over the Stamp Act. Died at Long Island, N. Y., Sept. 28, 1776.

**Cold Harbor,** a village in Hanover county, Virginia, 2 miles N. E. of Chickahominy Creek, and 9 miles N. E. of Richmond. It is noted as the scene of two battles during the Civil War; June 3, 1864, between the Confederates under General Lee and the Federals under General Grant; and a smaller encounter, June 27, 1862, at Gaines' Mill, at this place.

**Cold Storage,** the method now generally employed to preserve perishable articles of food by the air of freezing machines.

**Coldstream Guards,** a regiment in the Foot Guards or Household Brigade, the oldest in the British army.

**Cold Light,** a term applied to a scientific discovery of great value, by Prof. C. F. Dussand of Paris, and made public in 1916. In the illumination produced by his apparatus, a rapid succession of illuminated incandescent lamps takes the place of a single source of light. The apparatus consists essentially of a wheel on the circumference of which a number of tungsten lamps are placed, connected, each one in turn, to a source of electricity. Because the apparatus prevents the dissipation into space of the heat required to operate it, the resulting light has been popularly regarded as cold, though not absolutely so. The light is particularly adaptable for use where great luminosity must be obtained with a feeble current.

**Cole, Thomas,** an American landscape painter; born in Lancashire, England, Feb. 1, 1801. He painted "The Voyage of Life," showing childhood, youth, manhood, and old age. Very popular and well-known through engravings. He died in Catskill, N. Y., February, 1848.

**Coleman, Arthur Philemon,** a Canadian educator; born in Lachute, Quebec, April 4, 1852. Became Professor of Geology and Natural History in Victoria University, and in 1891 Professor of Assaying and Metallurgy in the School of Practical Science, Toronto.

**Coleman, Leighton,** an American clergyman; born in Philadelphia, May 3, 1837. Becoming an Episcopalian priest, after holding important rectorships was made bishop of Delaware in 1888. He died Dec. 14, 1907.

**Colenso, John William,** an English clergyman; born in Cornwall, Jan. 24, 1814. In 1854 he was appointed first bishop of Natal, South Africa. A tempest of disapprobation burst forth when he published "The Pentateuch and Book of Joshua Critically Examined." The Bishop of Cape Town declared Colenso deposed from his see; but on an appeal to the Privy Council the deposition was pronounced null. He died in Durban, Natal, June 20, 1883.

**Coleoptera,** an order of insects which has been recognized since the days of Aristotle. The number of species amounts to 100,000. They are sometimes collectively called beetles, and many of them are known as weevils, lady-bugs, etc. The glow-worm and the blistering fly belong to this order.

**Coleridge, Samuel Taylor,** an English poet and philosopher; born in Ottery, St. Mary, Devonshire, Oct. 21, 1772. Leaving college he first enlisted and afterward took up his residence at Bristol with two congenial spirits, Robert Southey and Lovell. The three conceived the project of emigrating to America and establishing a community in which all should be equal, on the banks of the Susquehanna. This scheme never became anything more than a theory, and was finally abandoned when the three friends married three sisters, the Misses Fricket, of Bristol. In 1796 he took a cottage at Nether Stowey, in Somersetshire, where, soothed and supported by the companionship of Wordsworth, he wrote much of his best poetry, in particular the "Ancient Mariner." He died July 25, 1834.

**Coles, Cowper Phipps,** an English naval architect; born in Hampshire in 1819. In 1855 he constructed a gun-raft which was favorably reported on; ultimately produced a form of turret-ship, the general idea of which had probably occurred to him independently, although its development owed much to the invention of John Ericsson. A vessel was built from his designs, and on Sept. 7, 1870, turned bottom upward in a gale and sank off Cape Finisterre, almost all on board, including Coles, being drowned.

**Colfax, Schuyler,** an American statesman; born in New York, March 23, 1823; removed in 1836 to Indiana, where in 1845 he acquired a newspaper at South Bend. He was a delegate to the Whig conventions of 1848 and 1852; was elected to Congress in 1854, by the newly-formed Republican party, and reëlected until 1869, being thrice chosen Speaker; and in 1868 he was elected vice-president of the United States, in Grant's first term. He spent the remainder of his life in political retirement, making public appearances only on the lecture platform, and died in Mankato, Minn., Jan. 13, 1885. He was the founder of the Daughters of Rebekah branch of American Odd Fellowship.

**Colgate University,** an educational institution in Hamilton, N. Y.; organized in 1819, under the auspices of the Baptist Church.

**Coligny, Gaspard de,** Admiral of France; a great Huguenot leader and martyr; born in Chatillon-sur-Loing in 1517; distinguished himself under Francis I. in the battle of Cerisoles and under Henry II., who made him colonel-general of the French infantry, and in 1552 admiral of France. After the death of Henry II. the intrigues of Catharine de' Medici, induced him to place himself at the head of the Calvinists against the Guises. An advantageous peace seemingly put a stop to this contest (1570). Coligny

appeared at court, and was with his adherents loaded with favors. Charles IX. gave him 100,000 francs as an indemnification for his injuries, together with a seat in the council. As the admiral was leaving the Louvre, Aug. 22, 1572, his right hand and left arm were wounded by a shot from a window. Maurenal had fired at him, according to the plan of Catharine de' Medici, probably with the knowledge of the Duke of Guise. Charles caused search to be made for the assassin at the moment when the massacre of the Protestants was already prepared. The slaughter began on the night of St. Bartholomew's, Aug. 24, 1572. The Duke of Guise hastened with a numerous suite to the house of the admiral. One Behme, or Besme, at their head, entered with his drawn sword and pierced him with several stabs and threw the body out of the window into the courtyard. The corpse was given up for three days to the fury of the people, and finally was hung up by the feet on a gibbet, at Montfaucon. Montmorency, a cousin of Coligny, had it taken down, and secretly buried in the chapel of the castle of Chantilly.

**Colima,** a Mexican State on the Pacific coast, with an area of 2,272 square miles, and a pop. (Est.) of 85,000. The soil is very fertile, the climate warm. The capital is Colima, 1,450 feet above the sea, about 40 miles E. N. E. of the port of Manzanillo. Pop. 25,148. Beyond the State frontier, about 35 miles N. E. of the capital rises the volcano of Colima (12,750 feet).

**Coliseum,** more properly **Colosseum,** a gigantic ruin in Rome, the greatest amphitheater which Roman magnificence ever erected. At present care is taken not to touch the ruins of the coliseum, but it is gradually crumbling away of itself. Only a portion of the upper range remains, the lower part is comparatively entire. The Coliseum received its name from the colossal statute of Nero which was placed in it.

**Collect,** a name given to certain brief and comprehensive prayers, found in liturgies and public devotional offices.

**Collectivism,** a word of recent origin, intended to express the central idea in the economic theory of socialism, that industry should be carried on with a collective capital.

**College de France,** a celebrated institution founded by Francis I., in 1530, now a very important educational institution, giving instruction over a very wide field of literature, history, and science. It is independent of the University of France.

**College Fraternities,** societies existing in American colleges which are named from the letters of the Greek Alphabet and therefore commonly called "Greek Letter Societies." They are secret only in their grips and passwords, their object being chiefly literary and social.

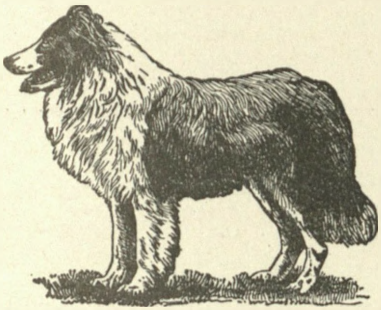
**College of the City of New York,** non-sectarian, founded 1848, occupying fine new buildings in N. Y. C., opened 1906. Instruction is free to city residents.

**Colleges for Women,** institutions of higher learning, designed to give women practically the same advantages of instruction and research as are afforded to men. They are of three types. Independent colleges for women of the same grade as those for men are peculiar to the United States. The earliest institution was Mount Holyoke College. Affiliated colleges in which the standards of entrance and graduation are the same as in the men's colleges with which they are affiliated. The prevailing system of coëducation in the United States for both men and women began in Oberlin College, in Ohio, in 1833.

**Collegiate Church,** in England, a religious house built and endowed for a society or body corporate independent of any cathedral.

**Collie,** a breed of the dog of obscure origin, which is highly valued. Many anecdotes are told of the collie, who from his intimate association with man has acquired almost human intelligence, a good dog being able to separate the sheep under his care from those of other flocks. The collie often deteriorates in intelligence when kept merely as a companion. When not spoilt, however, no dog makes such an agreeable companion as the collie, as his instinct is to attach himself to one person, to whom he becomes devoted.

**Collier, Robert Laird,** an American Unitarian clergyman: born at Salisbury, Md., Aug. 7, 1837. Starting in life as an itinerant Methodist preacher, he held prominent Unitarian pulpits in Chicago and Boston. He died near Salisbury, England, July 27, 1890.



COLLIE.

**Collingwood, Cuthbert, Lord,** an English naval commander: born in Newcastle-upon-Tyne in 1750. His most distinguished service was at Trafalgar, where his skill and resolution drew warm praise from Nelson. On the latter's death Collingwood, as senior officer, took command of the fleet, and gave proof of his judgment and nautical skill in his dispositions for the preservation of the captured vessels. He died while cruising off Minorca on March 7, 1810.

**Collins, Edward K.,** an American shipowner: born in Truro, Mass., Aug. 5, 1802. He early entered the shipping business, and after serving as superintendent of a packet line, he established in 1836 the Dramatic Packet Line from New York to Liverpool. In 1849 the Collins line between the same ports was inaugurated. The "Arctic" and the "Pacific" of this line are memorable in the history of marine disasters. The government having withdrawn mail subsidies, the line ceased operations in 1858. He died in New York City, Jan. 22, 1878.

**Collins, Patrick Andrew,** an American politician: born in Fermoy, Ireland, March 12, 1844. He came to the United States when four years old. He served in the Massachusetts Legislature, was a delegate to various Democratic National Conventions, sat in Congress and was Consul-General at London. He was prominent in Irish organizations; became Mayor of Boston, 1901; died Sept. 15, 1905.

**Collins, William,** an English painter, father of the novelist; born 1788, died 1847. He was felicitious in depicting child life, as attested by "Happy as a King"; "Boys with a Bird's Nest," etc.

**Collins, William Wilkie,** an English novelist; born in London, Jan. 8, 1824. He wrote a biography of his father in two volumes in 1848, and from that time he made literature his profession. His principal works which have been translated into French, German, Italian, Russian, and other languages, include "The Woman in White"; "No Name"; "The Moonstone"; "Man and Wife"; "The New Magdalen"; "The Two Destinies"; "Heart and Science"; "Blind Love". He died in London, Sept. 23, 1889.

**Collision,** in maritime affairs, the shock of two ships coming into violent contact, whereby one or both may suffer more or less injury.

**Collodion,** or **Collodium,** a substance prepared by dissolving one part of gun cotton in a mixture of 36 fluid parts of ether and 12 fluid parts of rectified spirit.

**Collodion Process,** a process in photography invented by Archer, who described it in 1851.

**Collot, D'Herbois, Jean Marie,** one of the most sanguinary leaders in the French Revolution; born in Paris in 1750. Before the Revolution he was a clever strolling player. He joined the club of the Jacobins and became a member of the Convention, and of the Committee of Public Safety. In 1793 he went to Lyons, where he had more than 16,000 persons put to death, and made it a capital crime to look sad or pitiful. An attempt was made to assassinate him, which only made him more popular, and he contributed powerfully to the fall of Robespierre. He was soon after denounced, arrested, and in March, 1795, transported to Cayenne, where he died in 1796.

**Collyer, Robert,** an American clergyman; born in Keighley, Yorkshire, England, Dec. 8, 1823. He came to the United States in 1849, being then a Wesleyan preacher and a blacksmith, but became a Unitarian and preached some years in Chicago, where he founded Unity Church in 1860. He was made pastor of the Church of the Messiah, New York City, in 1879. He died Nov. 30, 1912.

**Colman, Samuel,** an American painter; born in Portland, Me., March 4, 1832; studied in Europe in 1860–1862; was elected a member of the National Academy in 1862; and first president of the American Society of Painters in Water Colors.

**Colocynth,** the pith of the bitter apple; which is violently purgative. It is imported from Turkey. In large doses colocynth is an irritant poison.

**Cologne,** a city of Rhenish Prussia, on the left bank of the Rhine, forming, in connection with Deutz, which serves as a tete-du-pont on the opposite side of the river (across which are several bridges), a fortress of the first rank. The old fortifications, dating from the Middle Ages, have been swept away, new works being constructed in accordance with the principles of modern fortification.

The most important edifice of all is the cathedral, begun in 1248, one of the finest and largest Gothic structures in Europe. It was only completed in the 19th century, there being expended on it in 1828–1884 over $5,000,000. Pop. (1919) 552,000.

**Colombia,** a South American Republic extending along the Pacific Coast from the Isthmus of Panama to Ecuador, and along the Caribbean Sea, east to Venezuela. It comprises 14 departments and 9 other divisions; total area, 440,846 square miles; pop. (1923) Est. 6,300,000. Chief towns: Bogota (the capital), Medellin, Bucaramanga, Cartagena, Popayan, Ibagué, Tunja, Santa Marta. The former department of Panama became a republic in 1903. The surface of the country is varied, lofty mountains occupying the west, and vast low-lying plains the east. The climate ranges from mountain cold with snow and ice, to southern tropical conditions. Agriculture is largely carried on, but primitively; stock raising is the chief branch of industry.

Among the natural mineral products are gold, silver, iron, copper, lead, coal, sulphur, zinc, antimony, arsenic, cinnabar, rock-salt, crystal, granite, marble, lime, gypsum, jet, amethysts, rubies, porphyry and jasper; while much of the world's platinum is obtained from the upper San Juan, and the principal source of the finest emeralds is at Muzo in Boyaca.

The government is that of a republic, the chief magistrate being a president, elected for six years. The legislative power vests in a Congress of two Houses, called the Senate and House of Representatives. Congress elects for a term of two years, a substitute, who succeeds to the office of president or vice-president, should a vacancy occur during the term.

In 1870 a system of compulsory education was adopted which has on the whole proved successful. Parochial secondary, normal and technical schools are now within general reach and nearly all the departments boast universities of more or less efficiency. The State Church is the Roman Catholic, which in the management of its own affairs is independent of civil authority; toleration in matters of religion is guaranteed; but, by the terms of a concordat entered into with the Pope in 1888, in the universities and all educational establishments public instruction is directed in conformity with the dogmas of the Roman Catholic Church.

In 1863 a constitution was adopted, based on that of the United States of America, with a president elected for two years; but this proved altogether unsuited to the Colombians, and, after twenty years' trial, brought about the revolution of 1884–1885. In 1886 a new constitution with central Federal authority was adopted. In 1905, the national currency was reorganized on a gold basis.

**Colombo,** a seaport town, the capital of Ceylon. It has an extensive fort, within which are some of the best houses, and which occupies a projecting point of land. Through the construction of a breakwater and other works there is excellent harbor accommodation; and numerous vessels call here. Pop. (1921) 244,110.

**Colon,** the greatest and widest of all the intestines, about eight or nine hands' breadth long.

**Colon,** or **Aspinwall** (the former the official name), a free port of Panama, on Manzanillo Island, on the N. side of the Isthmus of Panama, at the Atlantic extremity of the interoceanic railway, and near that of the Panama canal. Established in connection with the railway, it had an important transit trade before the canal was begun, and since then the place has been entirely transformed, a new town with wide and regular streets having been built on a tract of land reclaimed by the canal company. There is extensive harbor accommodation. Pop. (1920) 31,230.

**Colonel,** the commander of a regiment, whether of cavalry, infantry or artillery. Any rank above a colonel constitutes the bearer of it a general officer. In the United States army a colonel is commander of troops below a brigadier-general, and above a lieutenant-colonel.

**Colonia,** a department of Uruguay, on the Plata, below the Uruguay river. Area, 2,192 square miles; pop. (Est.) 76,000. Its capital of the same name (pop. 2000), is on the Rio de la Plata, almost opposite Buenos Ayres.

**Colonna,** a village in the Papal States, which gave its name to one of the most powerful and celebrated aristocratic Roman families.

**Colonna, Prospero,** son of Antonio Colonna, prince of Salerno. He assisted Charles VIII. of France to conquer Naples, but subsequently aided in retaking it for the House of Aragon. He served under the great Gonsalvo, and was charged by him to conduct Cesare Borgia prisoner to Spain. In 1513 Prospero defeated the Venetians near Vicenza, was captured by the French two years later, but won several victories over them in 1521 and the following years. He died in 1523.

**Colonnade,** a range of columns. A colonnade differs from an arcade in this respect, that the columns of the former support straight architraves instead of arches.

**Colonus,** in Roman law, a freeman of inferior rank, corresponding with the Saxon ceorl and the German rural slaves.

**Colony,** a settlement formed in one country by the inhabitants of another. Colonies may either be formed in dependence on the mother country or in independence. In the latter case the name of colony is retained only in a historical sense.

Since the United States has acquired Porto Rico, the Philippines and Sulu Islands, and the Ladrone Island of Guam, the question of colonial government has become a national issue.

There are 126 colonies in the world and nearly as many distinct forms of colonial government, varying from practical independence to absolute control by the mother country.

**Colophon,** the device or imprint at the end of a published work, which in old books frequently stated the name of the author as well as the printer's name, along with the date and place of publication, most of which information is now put in the title page.

**Color,** the name given to distinguish between the various sensations that lights of various rates of vibration give to the eye. The optic nerves are excited by vibrations of the light-bearing ether when the rapidity of the vibrations is not greater than or less than two limits, which perhaps vary slightly with different eyes, just as some ears cannot hear intensely shrill sounds or dull sounds that are perceived by others. Every vibration between these limits is recognized as light; its intensity or brightness is observed; but besides this, the eye is differently affected by light of different times of vibration, in a way that it is not possible to describe. It is to this variation in the sensation that the name color is given. The word color is also applied to the properties of bodies that cause them to emit the light that thus affects our senses.

The colors of the spectrum are usually said to be seven — red, orange, yellow, green, blue, indigo, violet; although in reality there is an enormous, if not an infinite number of distinct colors in it. These colors are frequently called the primary colors, and other tints and shades are producible by mixing them; but in a stricter sense the primary colors are three in number, namely, red, green and violet (or blue). These three

colors or kinds of light cannot be resolved into any others. In the scientific sense of the word white and black are not considered colors, a white body reflecting, and a black body absorbing all the rays of light, while color is due to separation of the rays of light by partial absorption and reflection or by refraction.

**Color-Photography.** See PHOTOGRAPHY.

**Colorado,** a State of the Union, bounded by Wyoming, Nebraska, Kansas, Oklahoma, New Mexico and Utah; gross area, 103,948 square miles; admitted to the Union July 4, 1876; number of counties 63; population (1900) 539,700; (1910) 799,024; (1920) 939,629; capital, Denver.

Colorado is very mountainous, being traversed by the Rocky Mountains, which extend over nearly the entire breadth of the State. The average altitude of the State is 7,000 feet, the lowest portion being 3,000 feet above the sea, and there are over 100 mountain peaks more than 13,000 feet high. The valleys are a distinguishing feature of the scenery, and are known as parks. San Luis is the largest and has an area of 8,000 square miles, quite level, and at an elevation of 7,000 feet. The only lake of any size in Colorado is in this park, is about 6 miles in length and is fed by nearly 20 streams. Colorado is the principal watershed in the Western States, many of the largest rivers having their origin here, among them the Platte, Colorado, San Miguel, Arkansas and Rio Grande del Norte. Nearly all these rivers wind their way through rocky canyons, varying from one to 3,000 feet in depth. "Monument Park" and the "Garden of the Gods" contain "buttes," rising above the meadow land, shaped like towers and pillars, caused by erosion.

Colorado has about 15,000 square miles of fertile arable land, and about 70,000 square miles of grazing land. Most of the land will produce abundant crops under irrigation, which is now being carried on extensively, one irrigating canal having a length of 54 miles. The mountains are well covered with pine, spruce, and fir forests. The climate is very healthful and mild, and people suffering from pulmonary and asthmatic troubles find much relief here. There are various mineral springs, which are valuable for medicinal purposes. The hot sulphur springs in Middle Park and Wagon Wheel gap are popular resorts.

In 1900 Colorado ranked first in the production of gold, silver and lead, and beside being rich in copper, zinc and manganese, ranked eighth in iron and ninth in coal; but its rank has since frequently changed. In 1915 the total value of its mineral productions was $64,295,119, gold leading with $22,414,944, followed by zinc, $12,969,779. In 1914 there were 2,126 manufacturing plants, having $181,776,000 capital and product valued at $136,839,000. In 1920 the value of all farm property was $1,076,794,749. The principal crops, hay and forage, $60,769,080; wheat, $37,616,960; white potatoes, $19,524,525; corn, $14,147,875; oats, $4,308,752, and barley, $3,641,948. Fruit raising is also carried on profitably. In 1919 the total value of orchard fruit was $8,226,734. The value of domestic animals, poultry and bees in 1920 was $160,976,580. Manufacturing interests show a decided advance in the period 1910-1920.

The governor is elected for a term of two years, and receives a salary of $5,000 per annum. Legislative sessions are held biennially. The Legislature has 35 members in the Senate (elected for four years) and 65 in the House (elected for two years), each of whom receives $1,000 per term; Representatives in Congress, four.

The name Colorado comes from that of the river, meaning "red water." Explorations were made here by United States army officers in 1806, 1819 and 1842–1844, and several fur-trading stations were established. Gold was discovered in 1858, and as a consequence of this Denver Boulder and Auraria were speedily founded and made a county in the territory of Kansas. In 1861 Colorado, according to its present limits, was organized as a territory, and in 1876 was admitted into the Union.

**Colorado Beetle,** a beetle first described by Thomas Say, in 1824, from specimens found by him near the Upper Missouri. The larva feeds greedily on the potato, and having attracted notice in Colorado for its ravages among the crops of that escu-

lent in the territory, it moved eastward year by year, till in 1874 it had reached the Atlantic seaboard. It is popularly known as the potato bug.

**Colorado River, or Colorado of the West,** a great river of the United States and Mexico, formed by the junction of the Green and Grand rivers. From the mouth of the Little Colorado the river bends W., and for the first 200 miles shoots through the wonderful "Grand Canon." The walls of this water-worn trench are often vertical, or nearly so, for a distance of thousands of feet at a time; sometimes they slope steeply, or constitute magnificent terraces. The cliffs or rock-walls attain a height of from 4,000 to 7,000 feet above the stream, which runs with a varying descent of from 5 to 200 feet to the mile, and whose channel now contracts to 30 feet in width and now widens to 300 feet. There are frequent whirlpools and waterfalls. Below the canon the valley opens, and there is much fertile bottom-land.

Further on the Colorado twice again bores its way through deep canons, the sides of which in some places present walls of solid rock nearly 7,000 feet high. Thence it pursues a tortuous course, the last portion being through Mexican territory, to its mouth in the Gulf of California. From the source of the Green river the Colorado measures a total length of about 2,000 miles.

**Colorado River,** one of the chief streams of Texas. Rising in the high table lands of Bexar, it empties into Matagorda Bay. Austin, Bastrop and Columbus are on its banks, and Matagorda near its mouth.

**Colorado Springs,** city and capital of El Paso county, Col.; at the base of the Rocky Mountains, near Pike's Peak, and on several railroads; 6,000 feet above sea-level; 75 miles S. of Denver; is widely noted for its grand scenic attractions, which include the famous Garden of the Gods, Manitou and Monument Valley Parks, and South Cheyenne Cañon; is the seat of Colorado College (nonsect.), the State Institution for the Deaf and Dumb, and the Childs-Drexel Home for Union Printers; and is chiefly engaged in mining. Pop. (1920) 29,572.

**Color Hearing,** a vision of colors, which in some persons is thought to accompany their perception of sounds. The facts are not yet brought under any scientific rules; they seem to vary with different experimenters.

**Coloring,** one of the essential parts of painting — namely, that part which relates to colors.

**Color Printing,** the art of producing pictures, designs, cards, etc., in various colors by means of lithography, printing from metal blocks, etc.

**Colossians, Epistle to the,** a letter written to the Colossians by the Apostle Paul either from Rome or Cæsarea, at the same time that he wrote the epistles to the Ephesians and to Philemon. It contains a summary of Christian doctrine, especially dwelling on the divine power and majesty of Christ, and a series of practical exhortations to specific duties of Christian morality.

**Colossus,** in sculpture, a statue of enormous magnitude. The celebrated colossus of Rhodes was reckoned one of the seven wonders of the world. This statue which by some has been reckoned among the fables of antiquity, was raised by the Rhodians in honor of Apollo.

Of other colossal statues, those which were executed by Phidias are among the most celebrated for beauty and elegance of workmanship.

In the United States a figure of "Liberty Enlightening the World," 151 feet high (with pedestal 305), has been erected in New York, overlooking the harbor and serving as a beacon. It was the work of the French sculptor Bartholdi, and was constructed mainly through the efforts of a French-American Union formed in 1874. In 1880 it was presented by France to the United States, and six years later it was placed on its present site, Bedloe's Island.

**Colquitt, Alfred Holt,** an American legislator; born in Walton county, Georgia, April 20, 1824. He served in the Mexican war, and was elected to Congress in 1852 as a Democrat. Upon the outbreak of the Civil War he entered the Confederate army as a captain. He was elected governor of Georgia in 1876 and United

States Senator in 1882 and in 1888. He died in Washington, D. C., March 26, 1894.

**Colt, Samuel,** an American inventor; born in Hartford, Conn., July 19, 1814. He went to sea as a sailor boy when aged 15. His attention being drawn to firearms while at sea, he began to perfect a revolver and patented it in 1835. Its great success led to the erection by him at Hartford of one of the most extensive weapon factories in the world. He died in Hartford, Jan. 10, 1862.

**Colton, Gardner Quincy,** an American scientist; born in Georgia, Vt., Feb. 7, 1814. While lecturing on chemistry and physics, accident led him to a discovery of the anæsthetic properties of nitrous oxide, or "laughing gas," credit for which is also given to Dr. Horace Wells. He died in Rotterdam, Holland, Aug. 11, 1898.

**Colton, Walter,** an American writer; born in Rutland, Vt., May 9, 1797. Died in Philadelphia, Pa., Jan. 22, 1851.

**Coltsfoot,** a composite plant, abundant in the United States in moist and clayey soils. The leaves have been used medicinally as an infusion, or have been smoked like tobacco for the cure of asthma.

**Coluber,** a linnæan genus, comprehending all the snakes now included under the family Colubridæ. The species are very numerous, some of them beautifully colored, and all are harmless. The black snake — which must not be confounded with the Boa Constrictor — is common in all the Southern and South Atlantic States. It is rarely molested by those who know its habits, as it is very useful in destroying rats and kindred vermin. It sometimes attains a length of eight or nine feet.

**Columba, St.,** a native of Ireland (Gartan in Donegal); born in 521. About 563 he landed in the island of Hy, now called Iona, and founded his church. About 565 he went on a mission of conversion among the northern Picts, and traversed the whole of Northern Scotland, preaching the Christian faith and founding monasteries, all of which he made subject to that which he had set up on the island of Hy. The Columban Church was in some points opposed to Rome. He died in Iona, 597.

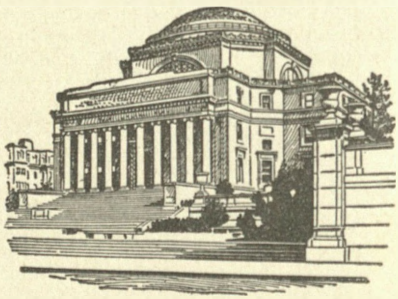
**Columbia,** the popular name of the United States; derived from Columbus, the discoverer.

**Columbia,** city and capital of Richland county and of the State of South Carolina; on the Congaree river and several railroads; 130 miles N. W. of Charleston; contains besides the State Capitol, the State Penitentiary, State Insane Asylum, Federal Building, South Carolina College, Allen University, Benedict College, Presbyterian Theological Seminary, and Presbyterian and Columbian Colleges for Women. Pop. (1920) 37,537.

**Columbia, District of.** See DISTRICT OF COLUMBIA.

**Columbia River,** after the Yukon the largest river on the W. side of America; rises in British Columbia, on the W. slope of the Rocky Mountains; has a very irregular course, generally S. W. through Washington; forms the N. boundary of Oregon for about 350 miles; and enters the Pacific by an estuary 35 miles long and from 3 to 7 wide. Its estimated length is 1,400 miles. The extraordinarily abundant salmon-fisheries of the Columbia have been largely developed.

**Columbia University,** a seat of learning in New York city. The charter of King's College, the original



LIBRARY OF COLUMBIA UNIVERSITY.

name of Columbia, was granted by George II., and finally passed the seals on Oct. 31, 1754, from which day the

college dates its existence. King's College played a conspicuous part in securing and confirming the independence of the United States. The Revolutionary War caused a suspension of the activities of the college, and in 1776 the college building was used as a military hospital. After eight years the college work was resumed by act of the Legislature, May 1, 1784, under the name of Columbia College.

The original site of the college was in what became later the block bounded by College Place, Barclay, Church and Murray streets. From 1857-97 it was at Madison Ave. and 49th to 50th streets. In 1892, 17½ acres of land on Morningside Heights from 116th to 120th sts. were purchased for $2,000,000, and here in 1897 the college was reorganized as a university. It has 48 departments of instruction, and over 3,000 students yearly. J. Pulitzer gave $2,000,000 for a school of journalism, 1903. Hartley and Livingston dormitory halls were opened, 1905. Barnard (Ladies) Coll., Teachers Coll., and Natl. Acad. of Design schools, affiliated, are near. The central library building and other costly buildings including St. Paul's Chapel, completed 1907, form a fine group.

**Columbus,** city and capital of Muscogee county, Ga.; on the Chattahoochee river and the Central of Georgia and other railroads; 100 miles S. W. of Atlanta; is the trade center of the Chattahoochee valley; is in a corn, cotton, and fruit section; and has large cotton mills, cotton compresses, flour mills, and iron works. Pop. (1920) 31,125.

**Columbus,** a city, capital of the State of Ohio, and county-seat of Franklin county; on both sides of the Scioto river, about 70 miles from its mouth; and 100 miles N. E. of Cincinnati. It is the center of 18 railroad lines, and the fourth city in the State in population and importance. Area, 16½ square miles. Pop. (1920) 237,031; (1925 Est.) 279,836.

**Columbus, Christopher,** (in Spanish CHRISTOVAL COLON; in Italian, CHRISTOFORO COLOMBO, which is his real name), born in Genoese territory, probably between 1430 and 1450. The place of his birth is as uncertain as the year, several towns in Genoese territory (among others Genoa itself) and at least one town out of it, claiming the honor; but it seems to be established that the last claim at least is unfounded. His father, Domenico Colombo, a poor wool-comber, gave him a careful education. He soon evinced a strong passion for geographical knowledge, and an irresistible inclination for the sea. The details of his early life are confused and unsatisfactory. He appears to have gone to sea at an early age, and to have navigated all parts of the Mediterranean and some of the coasts beyond the Straits of Gibraltar.

In 1470 we find Columbus at Lisbon, where he married the daughter of Bartolommeo de Palestrello, a distinguished navigator, who had founded a colony in Porto Santo, an island recently discovered and belonging to the Madeira group, and had left many charts and nautical instruments. Columbus made use of these materials, and his opinion that the other side of the globe contained land, belonging to Eastern Asia and connected with India, which was, as yet little known, became more and more fixed. While the Portuguese were seeking to reach India by a S. E. course round Africa, he was convinced that there must be a shorter way by the W. He applied in vain to the city of Genoa for assistance, and equally fruitless were his endeavors to interest John II. of Portugal in the enterprise. He also sent letters on the subject to Henry VII. of England, with the same ill success. He then determined to apply to the Spanish court, Ferdinand and Isabella, being at this time the sovereigns of Spain, and after an eight years' struggle with the obstacles thrown in his way by ignorance and malice, he received three small vessels. These were named the "Pinta," the "Nina," and the "Santa Maria"; and according to Jal each of them was fully decked and had four masts and a crew of 90 men. The dignity of high-admiral and viceroy of all the countries he might discover was conferred on him, the former to be hereditary in his family. A certain share of the profits arising from his expedition was secured to him by a written contract with the sovereigns.

It was early in the morning of Fri-

day, Aug. 3, 1492, that Columbus set sail from the port of Palos. Eighteen years had elapsed since he conceived the idea of this enterprise. Having provided himself at the Canary Islands with fresh water, he sailed S. W. into an ocean never before navigated. But when 21 days had elapsed without the sight of any land, the courage of his men began to sink. It was certain, they said, that they should perish, and their visionary commander ought to be forced to return. Some of them even proposed to throw him overboard; and Columbus had to exert all the powers of his daring and commanding spirit to prevent an open rebellion.

The occurrence of a strange phenomenon, which surprised even him, filled his pilots with consternation: the needle deviated a whole degree. But the sea appeared suddenly covered with grass, and again showed symptoms of shoals and rocks. Numbers of birds were also seen. Columbus sailed in the direction from which they flew. For some days the voyage was continued with revived courage, till at last the dissatisfaction of the crews began to break out into open violence; but Columbus, after endeavoring to pacify his men by promises, finally assumed a different tone, and told them it was useless to murmur; that he was determined to persevere. Fully convinced that he must be near the land, he promised a reward to whosoever should first discover it. On the nights of Oct. 11 and 12 Columbus himself descried a light which sometimes flickered in the distance and sometimes disappeared, and at two o'clock in the morning of the 12th a cannon shot from the "Pinta" announced that a sailor belonging to that vessel had discovered land.

It was the island of Guanahani which Columbus believed to belong to Eastern Asia and to be connected with India, a belief which he carried with him to his grave. Hence the mistaken name of Indians applied to the natives of America, and that of West Indies applied to the group of islands of which Guanahani forms one. On landing Columbus threw himself on his knees and kissed the earth, returning thanks to God. The natives collected round him in silent astonishment, and his men, ashamed of their disobedience and distrust threw themselves at his feet, begging his forgiveness. Columbus drawing his sword planted the royal standard, and in the name of his sovereigns took possession of the country, which, in memory of his preservation he called St. Salvador. He then received the homage of his followers, as admiral and viceroy, and representative of the sovereigns.

Having received information from the natives that there was a rich gold country toward the S., Columbus directed his course toward that region, and reached Cuba on Oct. 28, and Espanola (Hispaniola, Haiti) on Dec. 6; but as one of his vessels was wrecked, and the other separated from him, he resolved to carry the news of his success to Spain. Having built a wooden fort from the wreck of his vessel, he left in it 39 volunteers, and set out on his return Jan. 4, 1493. The day after he left the island he met the "Pinta" which had been missing. Both vessels were afterward nearly wrecked in a tremendous storm. Columbus, more interested for his discovery than for himself, wrote an account of his voyage on a piece of parchment which he secured in a cask, and threw the whole overboard, in the hope that it might be carried ashore. He had hardly finished this work when the gale subsided. March 15, he reentered the port of Palos amid the acclamations of the people, the thunder of cannon, and the ringing of bells. He hastened immediately to Barcelona where the court then was, and entered the city in a triumphal procession with the productions of the newly discovered countries carried before him. A chair was placed for him next to the throne, and seating himself, he gave an account of his discoveries. He was created a grandee, and all the marks of royal favor were lavished on him.

On Sept. 25, 1493, he set sail from Cadiz with three large ships of heavy burden, and 14 caravels, carrying 1,500 men. On Nov. 3 he discovered the island of Dominica, and afterward Mariegalante, Guadeloupe, and Porto Rico, and on the 22d he arrived at Hispaniola. Finding the colony he had left destroyed, he built a fortified town, which he called, in honor of the

queen, Isabella, and of which he appointed his brother Diego governor. He immediately left the island in order to make new discoveries, visited Jamaica, and returning after a voyage of five months, worn down with fatigue, found to his great joy that his brother Bartolommeo, who had escaped from his captivity, had arrived at Isabella with provisions and other supplies for the colony.

In the meantime a general dissatisfaction had broken out among his companions, who, instead of the expected treasures, had found hardships and labor. They set on foot many calumnies, and gave the most unfavorable description of the country and the viceroy. Columbus thought he could not better oppose these reports than by sending considerable treasures to his sovereigns, and for this purpose collected gold from the natives, which was not done without violence and some cruelty. Aguado, a personal enemy of Columbus, was sent as commissioner to investigate the complaints against the great discoverer, who, thinking it time to vindicate himself in the presence of his sovereigns, prepared to return to Spain. Having appointed his brother Bartolommeo adelantado, or lieutenant-governor, he embarked for Spain in March, 1496, with 225 Spaniards and 30 natives. In Spain calumny was silenced by his presence, and probably still more by his treasures. Yet his enemies were powerful enough to detain the supplies intended for the colony a whole year, and to retard the fitting out of a new expedition.

It was not till May 30, 1498, that he sailed with six vessels on his third voyage. To man these vessels criminals had unwisely been taken — a measure which Columbus himself had advised, and which had been taken up with great satisfaction by his enemies. Three of his vessels he sent direct to Hispaniola; with the three others he took a more S. direction for the purpose of discovering the mainland, which information derived from the natives induced him to supppose lay to the S. of his former discoveries. He visited Trinidad and the continent of America, the coasts of Paria and Cumana, and returned to Hispaniola, convinced that he had reached a continent. His colony had been removed from Isabella, according to his orders, to the other side of the island, and a new fortess erected called St. Domingo. Columbus found the colony in a state of confusion.

After having succeeded in restoring it to tranquillity by his prudent measures, in order to supply the deficiency of laborers he distributed the land and the inhabitants, subjecting the latter to the arbitrary will of their masters, and thus laying the foundation of that system of slavery which has lasted down to our time. His enemies, in the meantime, endeavored to convince his sovereigns that he had abused his power, and that his plan was to make himself independent, till at last even Isabella yielded to the wishes of Ferdinand, who had previously become convinced of the truth of the slanders. Francisco de Bobadilla was sent to Hispaniola, with extensive powers, to call the viceroy to account. As soon as he reached the island he summoned Columbus to appear before him, and put him in irons. His brothers were treated in the same manner; all three were sent to Spain, accompanied by a number of written charges, drawn up from the statements of the bitterest enemies of Columbus. Columbus endured this outrage with noble equanimity, and wrote, as soon as he had arrived in Cadiz, Nov. 25, 1500, to a lady of the court vindicating his conduct and describing in eloquent and touching language the treatment he had received. The fetters with which he had been bound he kept to the day of his death, and his son Hernando states that he even ordered that they should be inclosed with him in his coffin. Orders were immediately sent directing him to be set at liberty, and inviting him to court, where his sovereigns received him with the same distinction as formerly. Isabella was moved to tears, and Columbus, overcome by his long suppressed feelings, threw himself upon his knees, and for some time could not utter a word for the violence of his tears and sobbings. He then defended himself by a simple account of his conduct, and was reinstated to his dignities. Ferdinand even consented to dismiss Bobadilla which was intended for the first step toward the promised restoration of the great dis-

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coverer in his dignities. But these dispositions in the monarchs were soon changed. There was much talk of great expeditions, and in the meantime Nicolas de Ovando y Lares was sent as governor to Hispaniola. Columbus still urged the fulfilment of the promises solemnly made to him; but after two years of delay he became convinced that there was no intention to do him justice.

But his noble mind had now learned to suffer, and he was principally desirous of completing his work. Supposing the continent which he had seen to be Asia, he did not doubt that he should find, through the Isthmus of Darien, a way to the East Indies, from which the first fleet of the Portuguese had just returned richly laden. In four slender vessels supplied by the court for this purpose Columbus sailed from Cadiz on his fourth and last voyage, May 9, 1502, with his brother Bartolommeo and his son Hernando; arrived contrary to his original intention off St. Domingo, June 29, and was denied permission to enter the port for the purpose of refitting his vessels, and escaping a storm that was approaching. He succeeded, nevertheless, in anchoring his small squadron in a place of safety, and rode out the storm while a fleet of 18 vessels, which had put to sea in spite of his warning, was almost entirely destroyed. He then continued his voyage to Darien, but without finding the expected passage. Two of his vessels were destroyed by a gale; the two others were wrecked off Jamaica, where he was scarcely able to save himself and his companions. Here the severest trials awaited the constancy of Columbus. Separated from the other part of the world, his destruction seemed to be certain. But he succeeded in procuring a few canoes from the natives, and prevailed on some of his boldest and best men to attempt a voyage to Hispaniola, in two canoes, in order to inform the governor of his situation. Several months elapsed without a glimpse of hope. Part of his companions, reduced to despair, rebelled, repeatedly threatened his life, separated from him, and settled on another part of the island. Here they alienated the minds of the natives by their cruel treatment so much that they ceased to bring them supplies. The death of all seemed inevitable; but Columbus, whose courage rose with the danger, preserved his men in this crisis.

He had fortunately ascertained that a total eclipse of the moon was about to take place, and threatened the natives with the vengeance of his God if they should persist in their enmity. As a proof of his assertion the moon, he said, would lose its light, in token of the chastisement which awaited them. When they beheld his threat verified they hastened to bring him provisions, and implore his intercession with the Deity. But hostilities now broke out between him and the rebels, in which several of the latter were killed, and their leader was taken prisoner. After remaining a year on the island, relief at last appeared. The two canoes had reached Hispaniola in safety, but the messengers could not prevail on the governor to undertake the deliverance of the admiral. They finally bought a vessel themselves, and it was on board this ship that Columbus left Jamaica, June 28, 1504. He went to St. Domingo, but only to repair his vessel, and then hastened back to Spain. He arrived in Spain sick and exhausted. The death of the queen soon followed, and he urged in vain on Ferdinand the fulfillment of his contract. After two years of illness, humiliations, and despondency, Columbus died in Valladolid, May 20, 1506. His remains were transported, according to his will, to the city of St. Domingo, but on the cession of Hispaniola to the French, they were removed in January, 1796, with great pomp, to the cathedral of Havana in Cuba. A splendid monument was erected to him in a convent at Seville, where his body lay before being transferred to St. Domingo. In 1898 the remains of the discoverer were removed to Spain, Cuba being no longer a Spanish possession since the war with the United States.

In the vigor of manhood Columbus was of an engaging presence, tall, well formed, and muscular, and of an elevated and dignified demeanor. His visage was long, his nose aquiline, his eyes light gray, and apt to enkindle. His whole countenance had an air of authority. Care and trouble had turned his hair white at 30 years of

age. He was moderate and simple in diet and apparel, eloquent in discourse, engaging and affable with strangers, and of great amiability and suavity in domestic life. His temper was naturally irritable, but he subdued it by the benevolence and generosity of his heart. Throughout his life he was noted for a strict attention to the offices of religion; nor did his piety consist in mere forms, but partook of that lofty and solemn enthusiasm with which his whole character was strongly tinctured. Of a great and inventive genius, a lofty and noble ambition, his conduct was characterized by the grandeur of his views and the magnanimity of his spirit. For further information respecting the life of Columbus various authorities are available to the inquirer. His son Ferdinand wrote a memoir, but the original is lost, though an early Italian version exists which has been translated into English and other languages. His own journal of his first voyage may also be read in English, both it and Major's "Select Letters of Columbus" being published by the Hakluyt Society.

**Column,** in architecture, a round pillar. In military tactics, a deep, solid mass of troops, formed by placing several bodies of men behind each other (sections, platoons, companies, squadrons, and even several battalions). The column is either an open or a close one.

**Column of July,** a monument erected in Paris, in 1840, on the site of the old Bastille in honor of the citizens killed in the revolt against the government in 1830.

**Column of Trajan,** a monument erected in Rome in 114 A. D. in honor of the Emperor.

**Column of Vendome,** a monument erected in the Place de Vendome, Paris, by Napoleon I., to commemorate his victories over the Russians and Austrians in 1805.

**Coma,** a morbid state which, if considered a distinct disease, is a milder form of apoplexy, but which may be properly regarded as a symptom rather than an idiopathic affection.

**Comanches,** an aboriginal tribe of North American Indians, whose hunting grounds were the regions now known as Texas and Northern Mexico. They were very numerous between 1700 and 1750, having a tribal organization under chiefs of their own selection. They hunted on horseback, and were estimated to number 400,000 when first encountered by the whites. They have dwindled to insignificant proportions, and in 1899 numbered 1,553, on a reservation in Oklahoma.

**Combat, Single,** a very ancient usage, evidenced by Goliath (1 Sam: xvii), and by Ajax in the "Iliad." The barbarous practice survives in European countries, without its excuse of superstition, in the modern duel, which is legally prohibited in the United States. Until the early part of the 19th century the law of England permitted the guilt or innocence of accused persons to be decided by combat between accuser and accused.

**Combes, Justin Louis Emile,** French statesman, born 1835. He became Minister of Education in 1895, and Premier in 1902. He was distinguished by his anti-clericalism.

**Combs, Leslie,** diplomat, b. Little Compton, R. I., July 31, 1852; in 1902 became minister to Guatemala and Honduras; and 1906, to Peru, resigning the latter in 1911.

**Comédie Francaise,** the national subsidized theater of France, formed in 1680 by the fusion of the two bodies into which Moliere's company of actors had split. It is managed under rules made in 1812, with later amendments.

**Comedietta,** a dramatic composition of the comedy class, but not so much elaborated as a regular comedy, and generally consisting of one or at most two acts.

**Comedones,** a name applied to the little cylinders of sebaceous and epithelial substance which are apt to accumulate in the follicles of the skin and to appear on the surface as small round black spots. When squeezed out they have the appearance of minute maggots or grubs, with black heads, and thence have derived their name.

**Comedy,** a dramatic representation of a light and amusing nature, in which are satirized pleasantly the weaknesses or manners of society and the ludicrous incidents of life.

**Comets,** those celestial bodies, which consist of a bright star-like nucleus, encircled by a coma, and having a nebulous train or tail often of great length. The singularity of their shape, and the irregularity of their appearance, terrified the ancients, who connected their visits with the great, especially the calamitous, events of nations. Their appearance, however, is no more remarkable than the appearance of the moon. They are so distant, and either their motions are so rapid, or their substance is so rare, that none of them have been found to have any material action on such of the planets as they have come near though the planets have had a considerable influence on them.

**Comitia,** with the Romans, the assemblies of the people in which the public business was transacted and measures taken in conformity with the will of the majority. They existed even under the kings.

**Comity of Nations,** the international courtesy by which effect is given to the laws of one State within the territory and against the citizens of another State.

**Commander-in-Chief,** the supreme commander of the united forces of any country. In the United States the President for the time being is commander-in-chief of the army and navy, and of the militia of the several States when the latter is in the National service and formed part of the National provisional army. In all other cases the governor of each State is the commander-in-chief of the State troops.

**Commandery,** among the Knights Templar, Hospitallers, etc., a district under the administration and control of a member of the order, called the commander or preceptor.

**Commencement,** in educational institutions, the day when graduates receive their diplomas.

**Commensurable,** an appellation given to such quantities or magnitudes as can be measured by one and the same common measure. Commensurable numbers are such as can be measured or divided by some other number without any remainder.

**Commentary,** a term used (1) in the same sense as memoirs, for a narrative of particular transactions or events, as the "Commentaries" of Cæsar. (2) A series or collection of comments or annotations.

**Commerce,** a mutual exchange, buying and selling whether abroad or at home; but in a more specific or limited sense it denotes intercourse or transactions of the character now described with foreign nations or with colonies; mutual exchange or buying and selling at home being designated, not commerce, but trade.

The great World War early began to impose on the United States the burden of keeping up a steady flow of all manner of supplies not only to the scenes of conflict but also to neutral countries whose needful commodities were restricted beyond normal requirements by the perils of transportation and the local diminution of productive activities. Official reports covering the fiscal year 1924 the total imports and exports of the United States were valued at $7,865,422,008. Chief exports cotton, oils, tobacco, copper, wheat, coal and lard. Chief imports sugar, silk, coffee, rubber, hides and wool. Chief trade was with Europe.

**Commerce, Department of,** an executive department of the United States Government, created in 1903 as the Department of Commerce and Labor, and divided into two separate departments in 1913. The new Department of Commerce comprises the Bureaus of the Census, Corporations, Foreign and Domestic Commerce, Standards, Fisheries, Lighthouses, Coast and Geodetic Survey, Navigation, and Steamboat Inspection Service, and the Divisions of Publications and Supplies.

**Commercial Treaties,** compacts between two countries for the purpose of improving and extending their commercial relations, usually for a specified period but subject to change.

**Commission,** a formal act of trust; a warrant by which any trust is held or authority exercised. A written document, investing a person with an office or certain authority. A certificate issued by authority by which a military officer is constituted; as, a captain's commission. A body of persons joined in an office of trust, or their appointment; as, a building com-

mission. Brokerage, allowance, or compensation made to a factor, agent, etc., for transacting the business of another; as one per cent. commission on sales. Commission of bankruptcy, a commission appointed to investigate the facts relative to an alleged bankruptcy and to secure all available assets and effects for the creditors concerned. A commission merchant is one who sells goods on behalf of another, being paid by a certain percentage, called his commission. Putting a warship in commission is fitting her out for service after she has been laid up.

**Commission Government,** a form of municipal government that has recently become popular in the United States and been adopted in more than 400 large cities. It aims to put an end to partisan bossism, graft, and official corruption, by substituting for the ordinary municipal government one consisting of a mayor and a small commission. The various executive departments are divided between the commissioners, who are elected by the city at large; all franchises are submitted to popular vote; no ordinances passed by the commissioners can go into effect under 30 days; and within this period 10 per cent. of the voters can obtain a referendum to the entire body of voters if a proposed measure is deemed unwise. Some of the large cities that are administrated under this form of government are Buffalo, New Orleans, Cincinnati, Cleveland, Austin, Newport News, and Dayton. See CITY MANAGER.

**Commodus Antonius, Lucius Aurelius,** a Roman Emperor; born in 161 A. D.; the son of Marcus Aurelius. He went so far in defiance of decency as to fight in the circus like a gladiator, and then gave himself out to be a god, and would be worshipped as Hercules. He was at last poisoned by Marcia (one of his concubines, whose life he had intended to take), and then strangled by an athlete. The vices and misgovernment of Commodus contributed powerfully to hasten the fall of the empire. He died Dec. 31, A. D. 192.

**Common,** that which belongs as a privilege or right equally to more than one, to many, or to the public at large; free to all; general; universal; public; having no separate owner; as, the common weal.

The word is also applied to an open and (generally) uninclosed space, the use of which is not restricted to any individual, but is free to the public or to a certain number.

**Common Council,** the council of a city or corporate town, empowered to make by-laws for the government of the citizens.

**Commoner,** in Great Britain, a term applied to all citizens except the hereditary nobility.

**Common Law,** the unwritten law, the law that receives its binding force from immemorial usage and universal reception, in distinction from the written or statute law. It consists of that body of rules, principles, and customs which have been received from former times, and by which courts have been guided in their judicial decisions. Wherever statute law, however, runs counter to common law, the latter is entirely overruled.

**Common Pleas,** in law, pleas brought by private persons against private persons, or by the government, when the cause of action is of a civil nature. In many States of the United States it is a court having jurisdiction generally in civil actions.

**Commons,** the people who have a right to sit or a right to vote for representatives in the English House of Commons, and all who in England are under the rank of peers.

**Common Schools,** a term used in the United States as equivalent to the system of free public schools, originating in colonial times, and now universal throughout the Union, and justly regarded as the foundation of American liberty, progress and self-government. Its highest development is in the North, but it is making great progress in the South, and is being extended to Cuba, Porto Rico, Hawaii, and the Philippine Islands.

In Continental United States the Bureau of the Census in 1920 numbers those between 7 and 14 years of age as being 15,306,793. Those attending school as being 13,869,010. Those from 5 to 20 years attending school are numbered 21,373,976 in all classes, of which 13,418,814 are of nat've parentage.



By same census the number of public school buildings were 276,881.

**Commonwealth,** the state or condition of a country without any reference to the form of government under which it may be at the time. Owing to the semi-independent position of the States of the American Union the term commonwealth is of frequent application to the various members of the Union, Massachusetts being officially known as the "Commonwealth of Massachusetts." The new Australian Federation is known as the "Commonwealth of Australia."

The word is also applied to the period in the history of England during which the Parliamentary army and the Protector Oliver Cromwell exercised the power of government.

**Commune,** the unit or lowest division in the administration of France. In France there are about 36,000 communes, with a considerable measure of self-government, with the power of holding property, etc.

The rising of the Commune of Paris in 1871 was based on discontent at Paris, where the people found themselves in possession of arms after the siege of the Germans. The rising began on March 18, 1871, and was only suppressed 10 weeks later after long and bloody fighting between the forces of the commune and a large army of the central government, 6,500 Communists having fallen during May 20–30, and 38,578 been taken prisoners, many of whom were executed, and others transported.

**Communion.** In theology, the act of partaking with others of the sacramental symbols in the Lord's Supper.

**Communism,** a system of society in which common property is the recognized form. In later times it is an attempt to prevent or remedy the evils arising out of the inequalities of private property by holding property in common. But in primitive societies, in the hunting and pastoral stages of civilization, communism was universal.

Socialism is a vague phenomenon which must not be identified with communism. Yet the movement is largely colored with communistic conceptions, and in some of its schools a thoroughgoing communism is taught with lax notions as to the relation of the sexes. Different both from socialism and this aggressive communism are the communistic societies still existing in the United States. The latter are simply quiet efforts to realize for their members a happier state of things by community of property, but without a revolutionary propaganda and remote from the main current of modern social development.

**Comnenus,** the name of a family, originally Italian, of which many members occupied the throne of the Byzantine empire from 1057 to 1204, and that of Trebizond from 1204 to 1461.

**Como, Lake,** (anciently Lacus Larius), a lake in the N. of Italy, at the foot of the Alps; fed and drained by the river Adda, which carries its surplus waters to the Po. It is celebrated for the beautiful scenery of its shores, which are covered with handsome villas, gardens, and vineyards, mountains rising behind to the height of 7,000 feet.

**Comoro Islands,** a volcanic group in the Indian Ocean, between the N. extremity of Madagascar and the continent of Africa. They are four in number: Great Comoro, Mohilla, Johanna, and Mayotta. Mayotta belonged to France since 1843, and in 1886 the others became a French possession.

**Company,** a word of various applications, including:

(1) A number of persons legally associated for the performance of any duty or the carrying on of any business.

(2) The partners in any firm whose names do not appear in the title or style of the firm; in this use the word is generally contracted to Co.

(3) A society, corporation, or guild for the promotion and protection of the interests of any trade. When companies are authorized by the State or Government, they are termed corporations.

In military language, the smallest command of a captain of infantry. In the United States a company of infantry (full strength) numbers 100 men. In Europe it varies in strength from 48 rank and file (peace strength) to 120 (as in England), which is the limit of a dismounted officer's com-

mand, to 250 (as with the Continental armies), where the captain is mounted.

**Comparative Anatomy,** as distinguished from special anatomy; the science which examines and compares the structure of two or more different kinds of animals, so as to discover their points of resemblance and unlikeness; and as such it is a most important department of the science of biology.

**Compass,** an instrument used to indicate the magnetic meridian or the position of objects with respect to that meridian, and employed especially on ships and by surveyors and travelers. Its origin is unknown, but it is supposed to have been brought from China to Europe about the middle of the 13th century.

**Compasses,** a mathematical instrument used for describing circles, measuring lines, etc. They consist simply of two pointed legs movable on a point or pivot.

**Competition,** the act of endeavoring to gain what another endeavors to gain at the same time. In political economy it is simply the form taken by the struggle for existence as applied to industry.

Competition as applied to the public service is regulated by the state. The salaries in the various grades, and the conditions of employment, are fixed by authority. The chief material stimulus is the hope of promotion.

**Complexion,** the term generally used to signify the special color or hue of a person's skin.

**Composite Order,** a term denoting the last of the five orders of architecture. As its name implies, it is composed of two orders, the Corinthian and the Ionic.

**Composition,** an arrangement which a bankrupt or person in pecuniary difficulties makes with his creditors, and by which he arranges to pay them a certain proportion only of the debts due.

**Compostella, Order of St. James of,** an order of Spanish knights formed in the 12th century to protect the Christian pilgrims who flocked in vast numbers to Santiago-de-Compostella, where the relics of St. James were preserved. In time they attained great wealth, thereby exciting the jealousy of the crown, which succeeded in securing the grand-mastership in 1522, whereupon the order rapidly declined.

**Compound Fracture,** a fracture in which the bone is broken and the surrounding integuments have been pierced, making a wound from the external surface to the bone.

**Compounding of Felony,** the accepting of a consideration for forbearing to prosecute; or the agreeing to receive one's goods again from a thief on condition of not prosecuting. This is an offence punishable by fine and imprisonment.

**Compound Spirits,** rectified spirits to which has been added one or more flavoring ingredients. They are called also compounds.

**Compound Steam-engine,** a form of steam-engine originally patented by Hornblower in 1781, in which steam at a relatively greater pressure was allowed to expand in a small cylinder, and then, escaping into a larger cylinder, to expand itself against a larger piston.

**Compressed Air,** atmospheric air compressed by means of pumps, etc., and used in driving stationary and locomotive engines and excavating machines; as also in working pneumatic dispatch-tubes, railway-brakes, etc.

**Compurgation,** a mode of defense allowed by the Anglo-Saxon law in England, and common to most of the Teutonic tribes. The accused was permitted to call a number of men, styled compurgators, who joined their oaths to his in testimony to his innocence. They were persons taken from the neighborhood, or otherwise known to the accused, and acted rather in the character of jurymen than that of witnesses, for they swore to their belief, not to what they knew; that is, on the accused making oath of his innocence they swore that they believed he was speaking the truth.

**Comstock Lode,** a large and extremely rich metallic lode in the W. part of Nevada, on the E. slope of the Virginia mountains. To it belong the Big Bonanza and other mines, which have yielded gold and silver to the value of over $300,000,000.

**Comte, Isidore Auguste Marie Francois Xavier,** a French philosopher; born in Montpellier Jan. 12, 1798. He invented a religion which consists in referring the whole harmony of existence to, and concentrating its essence in one great Being, whom he termed Humanity. A system is propounded by him in which he has drawn up a regular calendar of demigods, presiding over the months, weeks, and days of the year, and having each their appropriate festivals. The thirteen months into which he divided the year he called Moses, Homer, Aristotle, Archimedes, Cæsar, St. Paul, Charlemagne, Dante, Gutenberg, Shakespeare, Descartes, Frederick, and Bichat. He himself assumed the office of high priest of this new religion, performing marriages and funeral rites on behalf of his disciples. He died in Paris Sept. 5, 1857.

**Conaty, Thomas James,** an American clergyman; born in Ireland, Aug. 1, 1847. He was graduated at Montreal Theological School and ordained a Roman Catholic priest. In 1896 he was made rector of the Catholic University of America, in Washington, D. C., and on Nov. 24, 1901, he was consecrated titular bishop of Samos. He died Sept. 18, 1915. .

**Concentration Camp,** a term that came into use during the last Spanish War in Cuba. It arose from the practice of the Spanish commander Weyler, gathering all the non-combatants of a district into one place, so that they could not give aid to their countrymen who were in arms. The British in the Boer War and the Americans in the Philippines established similar camps.

**Conception, Immaculate**, in the Roman Catholic Church, the doctrine that the Virgin Mary was born without the stain of original sin. It was received in the Roman Church as an opinion, but not as an article of faith till 1854, when the Pope issued a bull which makes the Immaculate Conception a point of faith.

**Concerto,** a composition for the display of the qualities of some especial instrument, accompanied by others and usually applied to a solo instrument in a band or orchestra.

**Conch,** a marine shell, especially of the Strombus gigas; and, in art, a spiral shell used by the Tritons as a trumpet, and still used by some African people in war.

**Conchology,** the science of shells. Two well-marked stages in its development are traceable. At first shells were studied without any reference to the animals of which they constituted the hard frame-work or skeleton. Subsequently the study took a wider scope, and for the first time became worthy of being called a science, when the animals and their shells were viewed as parts of one common whole. When shells were looked upon as little more than ornamental objects, those who studied conchology were not generally of a high order of intellect; but since the rise of geology and the discovery that, of all fossils, shells are able to furnish the most definite information regarding the several strata, and consequently regarding the history of bygone times, scientific minds of the very first class have given keen attention to them.

**Conciergerie, La,** a noted prison in Paris, which was a part of the Palais de Justice. Many royal prisoners were there confined, and during the Reign of Terror it was the scene of fearful butcheries, 328 prisoners being put to death in one week. Marie Antoinette went from her cell in this prison to her execution.

**Conclave,** the place where the cardinals assemble for the election of the Pope; also the electoral assembly of the cardinals themselves. Pope Gregory X., whose election had been delayed for three years, established in the council at Lyons (1274) the regulations of the conclave. The cardinals are shut up together in a particular suite of apartments in the palace where the pontiff dies, and they are supposed to have no communication with the outside world during the period of the election. The companion, either lay or clerical, whom the cardinal is allowed to take with him into the conclave during the election of a Pope is called a conclavist. The office is one of great delicacy and trust.

**Concord,** in music, the combination of two or more sounds pleasing

to the ear. Concords are the octave, the fifth, third, and sixth.

**Concord,** a town in Middlesex county, Mass., 20 miles west of Boston. It was for many years the seat of the famous Concord School of Philosophy, and is the site of the Concord State Reformatory. During the early part of the Revolution the Americans had a large stock of arms and military stores at Concord. Gen. Gage, the British Commander in Boston, hearing of this sent a body of soldiers to destroy these stores, and on their way they fought the battle of Lexington, the first of the war. When they reached Concord they destroyed what stores they could find, but were soon driven off by the Americans (April 19, 1775). Pop. (1900) 5,652; (1910) 6,421. (1920) 6,461.

**Concord,** a city, capital of the State of New Hampshire, and county-seat of Merrimac county; 75 miles N. W. of Boston. Concord was settled by the whites in 1725, on the site of an Indian village, but till 1765 it was called Rumford. It became a city in 1853. It is noted as the place where Hannah Dustin, another woman, and a boy, who had been taken captive by Indians at Haverhill, Mass., killed the 10 Indians, when asleep, with hatchets, and so escaped. Pop. (1900) 19,632; (1910) 21,497. (1920) 22,167.

**Concord,** city and capital of Cabarrus county, N. C.; on the Southern railroad; 21 miles N. E. of Charlotte; manufactures cotton and iron. Pop. (1910) 8,715. (1920) 9,903.

**Concordance,** a book of reference in which all the important words in the Bible are arranged alphabetically — part of the verse being extracted with each. The first English Concordance to the New Testament was that of Thomas Gybson, before A. D. 1540; the first to the whole English version of the Bible that of Marbeck, A. D. 1550. The elaborate and well-known work of Cruden appeared first in 1737.

**Concordat,** a compact, a convention, or an agreement entered into between the Pope and a sovereign prince or a government for regulating the affairs of the Church within the kingdom. The most notable one was that between Pope Pius VII. and Napoleon Bonaparte in 1801, which was abrogated by the French Government in 1906.

**Concrete,** a composition used in building, consisting of hydraulic or other mortar mixed with gravel or stone chippings about the size of a nut. It is used extensively in building under water, and is frequently used to make a bed for asphalt pavements, or to form foundations for buildings of any kind.

**Concubinage,** the act or state of living with one of the opposite sex without being legally married.

**Concurrent Jurisdiction,** the jurisdiction of different courts authorized to take cognizance of the same kind of case.

**Concussion of the Brain,** a shaking of the brain produced by a sudden shock or any similar cause, and generally resulting in at least temporary insensibility. Sometimes recovery takes place in a few minutes, the sufferer first seeing everything inky black, then dark red, then pink, after which the landscape returns. In severer cases insensibility may remain for days instead of minutes. In the worst cases the coma is never removed, but is succeeded by the yet deeper sleep of death.

**Concussion of the Spinal Cord,** due to similar causes acting on the vertebral column instead of the head. The symptoms vary much with the site and severity of the injury. In many cases they are altogether absent or quite trivial at first, and only attract attention after some hours or days have elapsed; yet, and probably for this very reason, the injury not being treated at first, serious after-effects are much more common than in cases of concussion of the brain. Here also, however, complete recovery is the rule.

**Condé,** the name of a French family, the younger branch of the Bourbons, who took their name from the town of Condé, Department of Nord. The greatest of these was Louis, Prince of Condé, born in 1621, who defeated William of Orange, afterward William the Third, of England, at Senef in 1674, and died in 1686.

**Condensation,** the reduction of anything to another and denser form, as of a vapor or gas to a liquid, or a liquid to a solid; the passage of gases or vapors from the aeriform to the liquid state. It is sometimes called also the liquefaction of vapors.

**Condensed Milk,** milk reduced greatly in bulk and rendered proportionately denser.

**Condenser,** an apparatus for reducing to a liquid form the steam in front of the piston, so as to obtain a partial vacuum at that point, and thus utilize the natural pressure of the atmosphere.

**Condiments,** or seasoning agents, are those substances which are employed at table for the purpose of imparting a flavor or seasoning to the ordinary solid or liquid food.

**Condonation,** in the legal phraseology both of Great Britain and the United States, means forgiveness granted by the injured party, and may be urged by the guilty party as a defense against an action of divorce on the ground of adultery.

**Condor,** the popular name of the great vulture of the Andes. These birds prefer to dwell above all animal life, and at the extreme limit of even Alpine vegetation, inhaling an air too highly rarefied to be endured, unless by creatures expressly adapted thereto. The appetite of these birds seems to be limited only by the quantity of food that can be gorged into their stomachs; and when thus overloaded they appear sluggish, oppressed, and unable to raise themselves into the air. But the condor does not exclusively feed upon dead or putrefying flesh; he attacks and destroys middling-sized or small quadrupeds; and when pinched by hunger a pair of these birds will attack a bullock, and by repeated wounds from their beaks and claws harass him until from fatigue, he thrusts out his tongue, which they immediately seize and tear from his head. It does not appear that they have ever attacked men.

The nesting-time of the condor varies with the latitude, and the place selected for the nest is usually some inaccessible ledge of rock. It lays two white eggs from 3½ to 4 inches long, which are hatched in about seven weeks. The development of the young birds is very slow since they are not able to fly until they are a year old, and they have to remain with the parent birds for a year or two longer. They are ocasionally seen even on the shores of the southern ocean, in the cold and temperate regions of Chile, where the Andes so closely approach the shores of the Pacific.

**Condorcet, Marie Jean Antoine Nicolas de Caritat, Marquis de,** a French writer; born near St. Quentin, Sept. 17, 1743. During the troubles of the first French Revolution his sympathies were strongly engaged on the side of the people. By the city of Paris he was elected deputy to the legislative assembly, of which he was soon appointed secretary, and in February, 1792, president. On the trial of Louis he was in favor of the severest sentence not capital; at the same time he proposed to abolish capital punishments, except in case of crimes against the State. The fall of the Girondist party, May 31, 1793, prevented the constitution which Condorcet had drawn up from being accepted, and as he freely criticised the constitution which took its place, he was denounced as being an accomplice of Brissot. Lest he should endanger the safety of Madame Verney who had given him refuge, he fled from Paris, and wandered about till arrested and thrown into prison, where, March 28, 1794, he was found dead on the floor, having apparently swallowed poison.

**Condottieri,** a class of mercenary adventurers in the 14th and 15th centuries, who commanded military bands, amounting to armies, on their own account, and sold their services for temporary engagements to sovereign princes and States.

**Conduit,** a line of pipes or an underground channel of some kind for the conveyance of water.

**Cone,** in geometry, a solid figure described by the revolution of a right-angled triangle about one of the sides containing the right angle, which side remains fixed.

**Coney Island,** a small island in the Borough of Brooklyn, about 10 miles S. E. of New York city. It is

about 5 miles in length and from half to three-quarters of a mile in width; separated from the mainland by Coney Island creek. It is connected with New York and Brooklyn by steam and electric railroads and steamboat lines. It is a popular summer resort.

**Confederate States of America, The,** the name adopted by the Southern States when they seceded from the Union and formed a government at Montgomery, Ala., Feb. 4, 1861. The Constitution of the Confederate States was modeled after that of the Federal Constitution, and in some important differences has won the approval of even Northern statesmen. It recognized Almighty God and invoked His favor and guidance. It guarded carefully the doctrine of the "sovereignty of each State." It expressly forbade the slave trade, or the importation of slaves from any foreign country other than the slave-holding States and Territories of the United States. It forbade "bounties" or "trusts" of any kind, and provided a "tariff for revenue." It gave Cabinet officers the privileges of the floors of its Congress, allowed the President to veto any part of a bill and approve the remainder, giving his reasons for such action, and fixed the term of office of the President at six years and made him ineligible for a second term.

**Confederate Veterans' Association,** a federation of all organizations of survivors of the Civil War on the Southern side. This association was organized at New Orleans, June 10, 1889. Its avowed purpose is strictly social, literary, historical, and benevolent.

**Confederation, Articles of,** a form of constitution adopted by the Continental Congress of the United States in 1777 and ratified by the colonies in the next four years. It provided for a Congress of one house only, in which each State should have one vote. This body was empowered to declare war and peace, make treaties with foreign powers, regulate the value of coin, etc., but as it had no power to enforce its laws upon the States, it soon fell into contempt and on March 4, 1798, expired by limitation under the provisions of the present Constitution.

**Confederation of the Rhine,** the league of Germanic States formed by Napoleon Bonaparte in 1806, and including Bavaria, Wurtemberg, Baden, Hesse-Darmstadt, the Kingdom of Westphalia, etc. It extended over 125,160 square miles, and comprised 14,608,877 inhabitants. The failure of Napoleon's Russian campaign of 1812 shook the structure, and the league soon after broke up.

**Conference,** in diplomacy, a meeting of the representatives of different powers for the purpose of adjusting differences; also, an annual gathering of the ministers, with a number of lay representatives of the several Methodist congregations, to deliberate upon the affairs of the religious denomination to which they belong.

**Confession,** act of confessing; that which is confessed; acknowledgment of a crime or fault; open declaration of guilt, failure, debt, accusation, etc.; avowal; profession; disclosure of sins or faults to a priest; a formulary of articles of faith; a creed. In law, confession is where a prisoner indicted of an offense, and brought to the bar to be arraigned, upon the indictment being read to him, and the court demanding what he can say thereto, confesses the offense and indictment to be true. Confession, in civil cases, is where the defendant confesses the plaintiff's right; or, in prosecutions under penal statutes, by which confession there may be a mitigation of a fine against the penalty of a statute, though not after a verdict.

**Confessional,** in Roman Catholic churches and chapels, a kind of inclosed seat in which the priest sits to hear persons confess their sins.

**Confession of Faith,** a statement of religious beliefs; a kind of elaborate creed. What is most distinctively known by this name is the document prepared by the Assembly of Divines which met at Westminster in obedience to an ordinance of Parliament issued June 12, 1643.

**Confirmation,** the act of confirming; that which confirms; additional evidence; proof; convincing testimony; assurance; establishment; ratification; as the confirmation of a treaty.

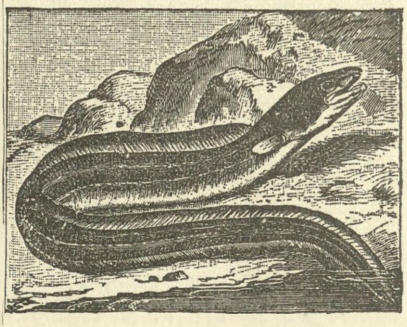
In theology, the laying on of hands by the bishop, for the conferring of the grace of the Holy Spirit; a rite by which a person arrived at years of discretion takes on himself the performance of the baptismal vow made for him by his sponsors.

In law, a deed of conveyance at common law, whereby an estate or right which is voidable is made sure and unavoidable,

**Confiscation,** the act of condemning as forfeited, and adjudging to the public treasury, the goods of a criminal in part punishment of a crime. The subject of confiscating the property of those in rebellion was warmly discussed both in and out of the United States Congress, at the beginning of the Civil War, and a bill to that effect was finally passed by Congress. and approved by President Lincoln, in 1862. The decision of the courts that confiscated property could be held only during the lifetime of the offender, and not against his heirs, practically nullified measures of confiscation.

**Confucius,** or **Kongfutse,** that is, "the teacher, Kong," the famous Chinese sage; born about 550 B. C. in the province of Shan-tung, then belonging in part to the small vassal kingdom of Lu. The deaths of his favorite disciples Yen Hwin and Tze-lu 481 and 478 did much to further his own, which took place in the latter year. Confucius left no work detailing his moral and social system. The teaching of Confucius has had, and still has, an immense influence in China, though he can hardly be said to have founded either a religion or a philosophy. All his teaching was devoted to practical morality and to the duties of man in this world in relation to his fellowmen; in it was summed up the wisdom acquired by his own insight and experience, and that derived from the teaching of the sages of antiquity. It is doubtful if he had any belief in a personal god.

**Conger, Edwin Hurd,** an American diplomatist; born in Knox county, Illinois, March 7, 1843. Enlisted in the Union army, attaining the brevet rank of major. At the close of the Civil War he studied law, beginning the practice of his profession in Galesburg, Ill., and removing to Iowa in 1868. He was elected to Congress in 1884 and twice reëlected as a Republican. In 1890 he was appointed Minister to Brazil, serving four years. In 1897 he was again appointed to that post and in the following year was transferred to China. He was at his post throughout the Chinese crisis of 1900, in Peking, being imprisoned with his family and the entire diplomatic corps in the British legation compound from June 20 to Aug. 15. They were rescued by the allied forces barely in time to save all from a general massacre. He returned to the U. S. in May, 1901; ran unsuccessfully for Governor of Iowa; in March, 1905, was appointed ambassador to Mexico, but resigned the following October. He died May 18, 1907.



CONGER-EEL.

**Conger,** a large sea-eel, 5, 6, or, in rare cases, even 10 feet long. Its upper parts are brownish-white, and the lower dirty-white; the lateral line spotted with white, the dorsal and anal fins white margined with black. A smaller species is found in the Mediterranean.

**Congestion,** an abnormal accumulation of blood in the capillary vessels, speedily producing a disordered function of the capillaries themselves.

**Conglomerate,** in geology, pebbles, gravel, or any similar collection of rounded water-worn fragments of rocks. the whole bound together by a silicious, calcareous, or argillaceous cement.

**Congo.** See KONGO.

**Congregation,** an assembly, generally a religious assembly; in its most ordinary use, an assembly of Christians met in one place for worship. The word is also used in the Church of Rome to describe communities of ecclesiastics who live together under rule, but without being bound by vow, or at least by solemn vow. The papal boards at Rome in charge of departments of church service are also called Congregations.

**Congregationalism,** or **Independency,** a form of evangelical Christianity which vests all ecclesiastical authority in the individual believers associated in a local church, complete in itself, but holding advisory coöperative relations with similar bodies. Congregationalism holds in common with other evangelical Christians the great facts of sin and of redemption through the incarnation and atonement of Christ as taught in the Bible. Congregationalism denies that there is any authority in Scripture for uniting the churches of a nation or province into one Church or corporation, to be ruled by a bishop or bishops, superior to the bishop or pastor of the particular congregations or by a presbytery or a synod consisting of the pastors or elders of the several congregations of the nation or province. This principle of Church polity is the specialty which plainly distinguishes Congregationalism from Episcopacy, Presbyterianism, Methodism, and other denominations whose churches are organized into a body having over its members any authority other than advisory. Usually each church has one minister or pastor, who is chosen by the free suffrages of the membership, but there may be more than one. In addition to the pastor or pastors, home missionaries and evangelists are sometimes appointed. Home missionaries and evangelists, if employed by a church for local service, are under the supervision of the church and not of the pastor, save as he is an agent of the church. Those commonly known as home missionaries and many evangelists, while members of some local church, are usually clergymen who have been formally inducted into the ministerial office according to the usages of the denomination.

Standing in the ministry is given (1) by the action of the church authorizing one of its members or any other person it may deem qualified to exercise ministerial functions; (2) by the action of a voluntary association of Congregational ministers approving a candidate after due examination, and commending him for a limited time as such to the churches; (3) by an action of a Council of Churches called by some local church or acting in its name, ordaining a man as pastor or evangelist or missionary, or installing a minister as pastor of the church calling the council. The secular affairs of the church are administered by trustees appointed by the church, not all necessarily members of the church. In some matters, like calling and installing a pastor, the church and the society act conjointly. The principles of this polity are held also by the Baptists, Unitarians, Universalists, and other denominations.

The first Congregational Church in England, of which there was any record, was formed in London about 1571. One of the most famous of the early churches in England was formed at Scrooby, in Lincolnshire. It met in the house of William Brewster, under the pastoral care, for a time, of Richard Clyfton. The famous John Robinson, M. A., succeeded him, and many regard him as the true founder of Independency. To escape persecution, members of this Church fled to Holland, from whence, through the influence of John Robinson, after 12 years, they crossed the Atlantic and landed at New Plymouth, the Pilgrim Fathers of the "Mayflower." In the cabin of the "Mayflower" was signed the famous compact which might be called the magna charta of American Congregationalism.

In 1638 Harvard College was founded. In 1658 the Savoy Confession was adopted, and still remains. Unitarian principles spread, about 1800, widely in the Congregational churches of America, and though a separation took place between the Unitarians and the Trinitarians, both still retain the Congregational form of church government. "Congregationalism," according to Dr. Schaff, is the ruling sect of the six Northeastern States, and has exerted, and still exerts, a beneficial

influence upon the religious, social, and political life of the whole nation."

In addition to the Conference, or Association of Churches, by which they coöperate for common ends, a National Council meets triennially "for advisory and not juridical ends." Its declaration, like that of a council of local churches, "hath so much force as there is in the reason of it." In the United States Congregationalists had (1923) 5,826 churches, 5,620 ministers, and 857,846 members. There are six National Societies, through which the charities of Congregationalists mainly flow.

**Congress,** an assembly either of sovereign princes, or of the delegated representatives of sovereign States, for the purpose of considering matters of international interest. In the United States, though the term has now a different meaning, it had a similar origin, the first congress being that of the delegates from the various British colonies, who met on Oct. 7, 1765, for the purpose of considering their grievances. Previous to signing a treaty of peace, a meeting of plenipotentiaries usually takes place, to which the name of a congress is sometimes applied, though it seems more properly to be reserved for those more important meetings at which extensive schemes of future policy are determined on, and the balance of power among the various European states readjusted.

**Congress, Library of,** an institution in Washington, D. C., which, despite its restricted name, is really the National Library of the United States. The Library of Congress was established in 1800, destroyed in 1814 by the burning of the Capitol, afterward replenished by the purchase by Congress of the library of ex-President Jefferson, in 1851; 35,000 volumes destroyed by fire; in 1852, partially replenished by an appropriation of $75,000; increased (1) by regular appropriations by Congress; (2) by deposits under the copyright laws; (3) by gifts and exchanges; (4) by the exchanges of the Smithsonian Institution, the library of which (40,000 volumes) was, in 1866, deposited in the Library of Congress, with the stipulation that future accessions should follow it. Fifty sets of Government publications are placed at the service of the Library of Congress for international exchanges through the Smithsonian.

The collection in the main library is now the largest single collection in the Western Hemisphere. It comprises over 3,180,000 printed books and pamphlets, maps and charts, pieces of music, prints and engravings, photographs, etc., number about 2,000,000. It is third largest library in the world. The law library of 103,000 volumes is not included. The main collection is rich in Federal documents, history, political science, jurisprudence, and Americana in general, including important files of American newspapers and original manuscripts. The exhibition cases on the second floor contain many rare books, including the records of the Virginia Company. The Smithsonian deposit is strong in scientific works, and includes the largest assemblage of the transactions of learned societies which exists in this country.

In 1897 the main collection was removed from the Capitol to the building erected for it under the acts of Congress. The building occupies three and three-quarter acres upon a site 10 acres in extent at a distance of 1,270 feet E. of the Capitol, and is the largest and most magnificent library building in the world. The floor space is 326,195 square feet, or nearly 8 acres. The book stacks contain about 45 miles of shelving, affording space for 2,200,000 volumes. Were the long corridors, now used in part for exhibition purposes, completely shelved, the building would accommodate over 4,000,000 volumes. The library contains a reading room for the blind.

**Congressman at Large,** in the United States, a member elected to the House of Representatives by the voters of the entire State instead of by districts.

**Congress of Religions,** an assemblage of representatives of all the Christian denominations and other religious bodies of the world, held at Chicago during the World's Columbian Exposition of 1893.

**Congress of the United States,** the legislative branch of the Federal Government, deriving its powers from the Constitution. It consists of a

Senate and a House of Representatives. The powers of Congress are enumerated in Article 1, section 8, of the Constitution, and all powers not granted to Congress, or prohibited to the States, are reserved to the States or to the people; but the power of Congress is absolute within the scope of its authority. The Senate is composed of two members from each State, the members of the House are apportioned on the basis of population. Bills that have passed both Houses are sent to the President, who may either sign or veto them, or do neither, in which case the bill becomes a law after 10 days unless Congress has previously adjourned.

Each house conducts its affairs under its own rules. The real work of legislation is done by committees, of which there are about 45 in the House, and 35 in the Senate. Salary of all members, $10,000 per annum and 20 cents per mile for traveling to and from Washington. This increase in salary, from $7,500, was enacted in 1925.

**Conibos,** a tribe of Indians in Eastern Peru, allied to the Ucayale tribe. The Spanish missionaries tried to convert them in 1683, but were driven out after 1695, when Father Ritchie was killed by the savages. They were an agricultural people and built villages. They are now partially civilized and are often employed as canoe men and rubber gatherers.

**Conic Sections,** three curves, the hyperbola, the parabola, and the ellipse; so called because these curves are formed by the intersection of the surface of a cone with planes that cut the cone in various directions.

**Conium,** a genus of umbelliferous plants, including the common hemlock. Various species of hemlock occur in this country, Europe and Asia.

**Conjunction,** in astronomy, one of the aspects of the planets. Two heavenly bodies are in conjunction when they have the same longitude — that is, when the same perpendicular to the ecliptic passes through both. If they have, at the same time, the same latitude they appear from the earth to be in the same spot of the heavens, and to cover one another. The sun and moon are in conjunction at the period of new moon.

**Conjunctiva,** the mucous membrane which lines the inner surface of the eyelids and the fore part of the globe of the eye. Conjunctivitis is an inflamed state of the conjunctiva.

**Conjuring,** the production of effects apparently miraculous by natural means. The earlier professors of the art claimed supernatural powers; and in ages when the most elementary principles of physical science were unknown beyond a very limited circle, it was not difficult to gain credence for such a pretension. The modern conjurer makes no such claim, but tells the public frankly that his marvels are illusory, and rest either on personal dexterity or on some ingenious application of natural principles. See LEGERDEMAIN.

**Conklin, Jennie Maria (Drinkwater),** an American author; born in Portland, Me., April 14, 1841. She was educated in the public schools, and while still in her teens won fame with her stories for children. In 1880 she married Rev. Nathaniel Conklin. She originated the "Shut-In Society," an organization of invalids for correspondence. She died in New Vernon, N. J., April 28, 1900.

**Conkling, Roscoe,** an American legislator; born in Albany, N. Y., Oct. 30, 1829; was admitted to the bar in 1850; sat in Congress as a Republican, and was elected to the United States Senate. He became an influential member of his party; in 1876 he received 93 votes for the Presidential nomination, and in 1880, by his support of Grant and his personal opposition to Blaine, divided the Republicans into two sections. In 1881 he and his colleague, Thomas C. Platt, suddenly resigned from the Senate owing to a dispute with President Garfield on a question of patronage, and sought reëlection; but both were rejected, though vigorously supported by Vice-President Arthur. Conkling afterward practised law in New York city. He died April 18, 1888.

**Connaught, H. R. H, Prince Arthur, Duke of,** third son of late Queen Victoria and uncle of King George V.; born, 1850; married Princess Louise of Prussia in 1879; became British and Prussian field-marshal; succeeded his brother (King Ed-

ward VII.) as Grand Master of Free Masons; appointed Gov.-Gen. of Canada, succeeding Earl Grey in 1911.

**Connecticut,** a State in the North Atlantic division of the North American Union; bounded by Massachusetts, Rhode Island, Long Island Sound, and New York; gross area, 4,965 square miles; one of the original 13 States; number of counties. 8; population (1900) 908,355; (1920) 1,380,585 capital, Hartford. Connecticut lies on the S. slope of the New England hill region. The highest elevation is Bear Mountain, Salisbury, 2,354 feet. The State is drained by three large rivers and their tributaries; the Connecticut, rising in New Hampshire, bisects the State in a N. and S. direction, and is navigable for 50 miles; the Thames, formed by the Shetucket, Yantic, and Quinnebaug, is navigable as far as Norwich; and the Housatonic, with its main branch, the Naugatuck, navigable to Derby. The coast line is about 100 miles in length and affords many excellent harbors, of which New Haven and New London are the largest.

The climate is temperate, and there are no swamps or marshes. The trees include several varieties of oak, pine, cedar, tamarack, chestnut, beech, wild cherry, ash, basswood, hickory, walnut, willow, poplar, dogwood, sycamore and holly.

Of various mineral productions iron ore is the most abundant. Copper and lead exist, but have never been mined with much profit. Silver occurs in minute quantities. There are immense quarries of red sandstone at Portland and Cromwell, and marble and limestone is quarried at Canaan and Washington, while the largest amount of orthoclase quarried in the United States comes from Glastonbury and Middletown. The agricultural interests of the State are very important. Cereals, fruits, and vegetables grow in great abundance in the W. valleys, and tobacco in the valley of the Connecticut.

Connecticut is one of the foremost manufacturing States in the Union. In 1921 there were reported 3,320 establishments employing 210,990 wage earners with combined output valued at $836,163,905. Bridgeport, Waterbury, New Haven and Danbury, chief manufacturing centers. The principal articles were rolled brass and copper, foundry and machine shop products, cotton goods, woolen goods, silk goods, plated ware, hats and caps, brass castings and finishings, worsted goods, firearms, and munitions. In 1920 Connecticut 22,655 farms, cultivated land in farms 1,808,980 acress, while the value of all farm property was placed at $226,991,667. The census bureau estimated the 1923 crops as being worth $52,500,000, with animal products for the same year worth $27,000,000. Value of livestock on farms, $18,000,000.

Education is compulsory, and the public schools are conducted on the highest plane. The strongest religious denominations numerically in the State are the Roman Catholic and Congregational.

In 1923 there were 999 miles of steam railroad in the State.

The governor is elected for a term of two years and receives a salary of $5,000 per annum. Legislative sessions are held biennially. The Legislature has 257 members in the House and 35 in the Senate, each elected for a term of two years, and receive $300 for regular sessions and mileage; Representatives in Congress, five.

The first settlement in Connecticut was made at Hartford, in 1633, by the Dutch. The first constitution was adopted in Hartford in 1639, and formed the basis of the charter of 1662. In 1686 the royal governor, Andros, attempted to obtain the charter, but it was hidden in the hollow of an oak tree. On the dethronement of James II. the Colonial government resumed its functions. Connecticut took an active part in the French-Indian, Revolutionary, 1812, and Civil Wars. She instructed her delegates in the Continental Congress to propose a declaration of independence, and was the fifth State to ratify the Federal Constitution. The Hartford Convention, most memorable of gatherings in the State, assembled Dec. 15, 1814. It protested against the war with England and against the action of the National Government with reference to State defense. This convention, which adjourned Jan. 5, 1815, raised the Federal party in the estimation of the people.

**Connellsville,** a borough in Fayette county, Pa.; on the Youghiogheny river and the Baltimore & Ohio and other railroads; 53 miles S. E. of Pittsburg; is best known as the largest coke-making place in the world. Pop. (1920) 13,804.

**Connelly, Celia Logan,** an American journalist and popular author; born in Philadelphia, in 1839; died June 18, 1904.

**Connelly, James H.,** an American journalist; born in Pittsburg, Pa., in 1840. He began newspaper work when 17 years old. His writings include short stories and special articles for newspapers and magazines, and novels. He died in 1903.

**Connemara** ("the Bays of the Ocean"), a boggy and mountainous district occupying the W. portion of county Galway, Ireland; about 30 miles in length and 15 to 20 miles in breadth. Its coasts are very broken, and there are numerous small lakes.

**Conning Tower,** the place in modern battleships where the commander stands during a naval engagement, and from which he directs the movements of the ship and men.

**Conon,** an Athenian general, was the son of Timotheus. Having been defeated in a naval engagement at Ægospotamos by Lysander, he for a time went into exile; but being aided by Artaxerxes, King of Persia, he returned and defeated the Spartans near Cnidos, 394 B. C. Conon then began to rebuild the fortifications of Athens, and restored it to liberty and security; but being sent on a political mission to Tiribazus, a Persian satrap, he was imprisoned, and it is not known what became of him.

**Conrad, Joseph** (Kortzeniowski), a Polish author, born in 1857, son of an accomplished writer of prose and verse and translator of many English works into Polish, who was exiled to Vologda by the Russian Government in 1863. When 19 years old Joseph left home to satisfy a longing for the sea, and continued voyaging till 1896, becoming a British subject in 1884. Before quitting sea service he secretly began his literary work, and his first production, "Almayer's Folly," was published in 1896, and at once attracted wide attention. In 1898, with his "Tales of Unrest" he divided the London Academy's annual prize for the most worthy literary production with Hewlett's "The Forest Lovers" and Sir Sidney Lee's "Life of Shakespeare." Died, 1924.

**Conrad, Robert Taylor,** an American lawyer, political speaker, editor, poet, and dramatist; born in Philadelphia, June 10, 1810; died June 27, 1858.

**Conrad von Wurzburg,** one of the most celebrated poets of the Middle Ages. His last poem, which he left in an unfinished condition, has for its subject, "The Trojan War." He died in Basel in 1287.

**Consanguinity,** the quality or state of being related by blood; nearness of kin; descent from a common ancestor.

**Conscience,** the moral sense, the internal monitor which signifies approval when we do well, and inflicts more or less acute and lasting pain when we act sinfully.

**Conscience, Hendrik,** a Flemish novelist, one of the re-creators of Flemish literature; born in Antwerp Dec. 3, 1812. His first story, "In the Wonder-Year 1566," was received with popular favor, and his delineations of lowly Flemish home life became familiar throughout Europe. He died in Brussels Sept. 10, 1883.

**Conscience Money,** stolen or wrongfully acquired money returned to its rightful owner when conscience is awakened to a sense of right dealing. In the United States such money paid into the Treasury at Washington by self-avowed debtors anonymously is known as the Conscience Fund.

**Consciousness,** the state of being conscious; knowledge or perception of what passes in one's own mind. The act of the mind which makes known an internal object. Internal sense or knowledge of guilt or innocence. Consciousness is the recognition by the mind of its own acts.

**Conscription,** the enlisting of the inhabitants of a country capable of bearing arms, by a compulsory levy, at the pleasure of the government.

During the American Civil War conscription was enforced both North and South. In the South every man and boy able to shoulder a gun was

obliged to serve, except those absolutely needed as millers, bakers, and in other necessary occupations.

**Consecration,** the act of solemnly dedicating a person or thing to the service of God. In the Jewish law, rites of this nature are frequently enjoined, the Levites and priests, the tabernacle and altar, etc., being specially dedicated or consecrated to God.

**Consent,** in law, is understood to be a free and deliberate act of a rational being. It is invalidated by any undue means — intimidation, improper influence, or imposition — used to obtain it. Idiots, pupils, etc., cannot give legal consent; neither can persons in a state of absolute drunkenness.

**Consequential Damages,** in law, are such losses or damages as arise out of a man's act, for which, according to a fundamental principle in law, he is answerable if he could have avoided them. The same law applies to railways and corporations generally, as determined in numerous cases.

**Conservative,** as applied to one of the two great parties in English politics, was first used by J. W. Croker in an article in the "Quarterly" for January, 1830, and was by Macaulay in the "Edinburgh" for 1832 referred to as a "new cant word." Conservative accordingly began to supersede Tory about the time of the Reform Bill controversies. The plural form of the word has been assumed as a distinctive name by certain political parties in many nations. These parties are sometimes actually, and always avowedly, opposed to changes from old and established forms and practices. In United States history these names have never been in general use, but in Van Buren's administration the name of Conservatives was applied to those Democrats that at the special session of Congress, of September, 1837, opposed the establishment of the sub-treasury system. In the Congress that met in December, 1839, they had practically disappeared. The name was also assumed by Southern whites during the reconstruction period following the Civil War, to show their adherence to the old State governments, the abolition of which by Congress they opposed. The name was also used at the North during this period. The Democrats applied it to themselves to draw moderate Republican votes.

**Conservatory,** a name given to a systematic school of musical instruction.

The term in gardening, is generally applied by gardeners to plant-houses, in which the plants are raised in a bed or border without the use of pots, the building being frequently attached to a mansion. The principles of their construction are in all respects the same as for the green-house, with the single difference that the plants are in the free soil, and grow from the floor instead of being in pots placed on shelves or stages.

**Considérant, Victor-Prosper,** a French Socialist; born in Salins in 1808. After being educated at the Polytechnic School of Paris, he entered the army, which, however, he soon left to promulgate the doctrines of the Socialist Fourier. On the death of his master (1837), Considérant became the head of his school, and undertook the management of the "Phalange," a review devoted to the spread of their opinions. Having gained the support of a young Englishman, Mr. Young, who advanced the money Considérant established, on a large estate in the department Eure et Loire, a socialist colony, but the experiment failed, and with it the "Phalange" fell to the ground. In 1849 Considérant was accused of high treason and compelled to flee from France. In Texas he founded a socialist community, which flourished for a time, but afterwards came to nothing. Considérant returned to France in 1869. He died Dec. 27, 1893.

**Consideration,** in law, the thing given, or done, or abstained from by agreement with another, and in view of that other doing, giving, or abstaining from something.

**Consignment,** a mercantile term which means either the sending of goods to a factor or agent for sale, or the goods so sent. The term is chiefly used in relation to foreign trade. In most countries a consigner can claim his goods and collect all outstanding debts for goods sold on his account by

a consignee who has suspended payment.

**Consistory,** an assembly of ecclesiastical persons; also certain spiritual courts holden by the bishops in each diocese. At Rome the consistory denotes the judicial court constituted by the college of cardinals. The representative body of the reformed church in France is styled consistory.

**Consols,** securities of a consolidated indebtedness, whether of public or private corporations, are in England quoted as consols. The term is generally applied to the British public debt securities, which, in September, 1903, were at the lowest figure for many years.

**Consort,** he, she, or that which shares the same lot with another; a companion; a partner; an intimate associate; a wife or husband; applied in a modern sense chiefly to persons of royal degree or position, in countries where women are able to reign. It is also applied to a ship sailing in company with another.

**Conspiracy,** a secret agreement or combination between two or more persons to commit any unlawful act that may injure any third person or persons. Specifically a combining falsely and maliciously to indict, or to procure the indicting or conviction of any innocent person of felony. In June, 1900, the House Committee on the Judiciary, of the United States Congress, reported a bill that aroused widespread interest in the labor and business world because it contained a definition of the word conspiracy. The bill provided that no agreement or contract between two or more persons to do, or not to do, any act in contemplation or furtherance of any trade dispute between employers and employees in any Territory of the United States, or who may be engaged in interstate or foreign trade, shall be deemed criminal, nor shall those engaged therein be indictable or punishable for the crime of conspiracy if such act committed by one person would not be punishable as a crime, nor shall any injunction be issued with relation thereto. Provided, that the provisions of this act shall not apply to threats to injure the person, property, business or occupation of any person, firm, or corporation, to intimidation or coercion, or to any acts causing or intended to cause an illegal interference by overt acts with the rights of others.

**Constable,** in the Middle Ages, an officer under certain European crowns, who had the command of the army, and the cognizance of military matters, and who was judge of the court of chivalry.

In the United States, a constable is, generally, a petty officer, whose duties include a limited judicial power as conservator of the peace, a ministerial power for the service of writs, etc., and some other duties not strictly referable to either of these heads.

**Constable, Archibald,** a Scotch publisher; born in 1774. He was the original publisher of the "Edinburgh Review," the poems of Sir Walter Scott, the "Waverley Novels," the "Supplement to the Encyclopædia Britannica," and other valuable works. In 1825 he projected the well-known series of works, "Constable's Miscellany." In 1826, however, the firm was compelled to stop payment with liabilities exceeding $1,250,000. Sir Walter Scott, who was heavily involved, practically sacrificed his life in the endeavor to meet his creditors. Constable himself did not long survive his misfortunes, as he died July 21, 1827.

**Constable, John,** an English landscape painter, born in Suffolk, June 11, 1776. Mr. Henry Marquand has presented two fine pictures by him to the Metropolitan Museum of Art in New York City. Constable died in London, March 30, 1837.

**Constable of Bourbon.** See BOURBON, CHARLES, DUKE OF.

**Constance,** city and lake port of Germany, in the republic of Baden, occupying the only territory belonging to Germany on the S. side of the Lake of Constance and about 35 miles N. E. of Zurich. Constance is said to have been founded in 378 A. D. by Constantius Chlorus as a bulwark against the Alemanni. In the Middle Ages, when it reached the height of its prosperity, it was frequently called Kostnitz. It was annexed to the Austrian dominions in 1549, and to Baden in 1805. Pop. (Est.) 30,000.

**Constance, Council of,** a general council of the Church of Rome, held between 1414 and 1418. After the death of Gregory XI. the French and Italian cardinals could not agree on a successor, and so each party chose its own candidate. This led to a schism which lasted 40 years. When the Emperor Sigismund ascended the throne in 1411, there were three Popes, each of whom had anathematized the two others. To put an end to these disorders and to stop the diffusion of the doctrines of Huss, Sigismund went in person to Italy, France, Spain, and England, and summoned a general council. In this council the teaching of Wyclif and Huss was condemned as heretical, and the latter was burned July 6, 1415; while his friend and companion, Jerome of Prague, met the same cruel fate May 30, 1416. After the ecclesiastical dignitaries supposed they had sufficiently checked the progress of heresy by these executions they proceeded to depose the three Popes — John XXII., Gregory XII., and Benedict XIII. Martin V. was legally chosen to the papal chair. Sigismund now thought a complete reformation might be effected in the affairs of the Church; but the new Pope having retired to Italy against the emperor's will the assembly was dissolved, and his object was not attained.

After the council had been convinced of the heresy of Huss, the Bishop of Concordia read the sentence that his books should first be burned, and that he, as a public and scandalous heretic, and an evil and obstinate man, should be disgracefully deprived of his priestly dignity, degraded, and excommunicated. The sentence was immediately executed, and began with the degradation. The Bishop of Milan and six other bishops led Huss to a table where lay the garments used in the mass, and the other raiment of the priests; they clothed him with them, and when he was in full dress, with the cup in his hand, the bishops once more called upon him to save his life and honor, and to abjure his opinions. Huss refused, and the bishops cried out to him "Descend from the scaffold." The Bishop of Milan and another bishop now took the cup, saying, "O Huss, we take from thee the cup in which was offered the blood of Christ; thou art not worthy of Him." The other bishops then came forward, and each one took off some part of the priestly apparel with the same speech. When they had finished with the clothes they scraped his shaven crown (to designate the removal of the oil of consecration). Finally, they placed on his head a paper crown, nearly a yard high, with devils painted upon it, and the inscription, "John Huss, arch-heretic." The bishops now turned to the emperor and said, "The holy council of Constance now surrenders to the temporal power and tribunal John Huss, who has no longer office or dignity in the Church of God." The emperor arose and took Huss, and said to the palatine Louis, "As we, dear cousin and prince, wear the temporal sword, take this John Huss and have him punished as becomes a heretic." Louis led Huss to the Provost of Constance, to whom he said, "Upon the sentence of our gracious lord, the Roman emperor, and our special order, take this Master Huss, and burn him as a heretic." The governor gave him to the executioner and his attendants, and Huss was burned.

**Constance, Lake of,** a lake of Central Europe, in which Switzerland, Baden, Wurtemberg, Bavaria, and Austria meet; forming a reservoir in the course of the Rhine; length 42 miles, greatest breadth about 8 miles; area 207 square miles. The lake, which is of a dark green hue, is subject to sudden risings, caused by the melting of the mountain snows. It freezes in severe winters only.

**Constant, Jean Joseph Benjamin,** a French portrait painter; born in Paris, June 10, 1845. His noble picture of "Justinian" is in the Metropolitan Art Museum, New York. He died in Paris, May 26, 1902.

**Constantine,** the ancient Cirta, a fortified city and bishopric, in Algeria; capital of the department of Constantine. The city has Roman remains, and a citadel on the site of the ancient Numidian fortress, rising 300 feet above the level of the rock. It was taken by the French, Oct. 13, 1837, after two memorable sieges. Pop. 46,581.

**Constantine, Flavius Valerius Aurelius Constantinus,** called the

GREAT; born A. D. 274; son of the Emperor Constantius Chlorus and of his wife Helena. When Constantine's father was associated in the government with Diocletian, the son was retained at court as a hostage, but was educated with the greatest care. After Diocletian and Maximian Hercules had laid down the reins of government, Constantine fled to Britain, to his father, to escape the machinations of Galerius. After the death of his father he was chosen emperor by the soldiery, in the year 306. He directed his arms against Maxentius, who had joined Maximian against him. In a campaign in Italy he saw, it is said, a flaming cross in the heavens, beneath the sun, bearing the inscription, "In hoc signo vinces." (Under this sign thou shalt conquer.) In the following night Christ himself appeared to him, and commanded him to take for his standard an imitation of the fiery cross which he had seen. Some days after this (Oct. 27, 312) he vanquished the army of Maxentius, under the walls of Rome, and drove it into the Tiber. He then entered the city in triumph, set at liberty all whom Maxentius had unjustly imprisoned, and pardoned all who had taken up arms against him. He was declared by the senate, Augustus, and Pontifex-Maximus. In the year 313, together with Licinius, he published the memorable edict of toleration in favor of the Christians. By this every one was allowed to embrace the religion most agreeable to his own mode of thinking, and all the property was restored to the Christians that had been taken from them during the persecutions. They were also made eligible to public offices. This edict marks the period of the triumph of the cross and the downfall of paganism. Constantine died in 337. On Nov. 26, 329, he laid the foundations of a new capital of the empire, at Byzantium, on the Bosporus, in Thrace. The city of Byzantium had been almost entirely destroyed by Severus; it was rebuilt by Constantine, and called by his own name, now known as Constantinople. Highly favored by nature, it soon rivaled Rome. In the year 337 Constantine fell sick in the neighborhood of Nicomedia, was baptized, and died after a reign of 31 years.

**Constantine I.** (KONSTANTINOS), a former king of Greece; born Aug. 3, 1868; eldest son of George (Georgios) I.; married, Oct. 27, 1889, Princess Sophia, sister of Emperor William II., of Germany; succeeded to the throne on the assassination of his father, March 18, 1913. At the outbreak of the World War he undertook to preserve neutrality, but his relations with the German dynasty gave rise to doubts of his sincerity. As the war progressed revolutions sprang up all over Greece; the Entente Allies took possession of important points; an independent government was set up under former Premier Venizelos; King Constantine was forced to abdicate; his son and successor, Prince Alexander, proclaimed, June 18, 1917, his intention of carrying out his father's policy; recalled by plebiscite in 1920; again forced to abdicate in 1922. Died Jan. 9, 1923.

**Constantine XIII.,** the last of the Greek emperors, succeeded to the throne in 1448. He was killed in defending Constantinople against Mahomet II., in 1453.

**Constantine, Pavlovitch,** the second son of the Emperor Paul of Russia; born in 1779; died in 1831.

**Constantinople** ("city of Constantine") called by the Turks STAMBOUL; capital of the Turkish Empire; on a promontory jutting out into the Sea of Marmora, having the Golden Horn, an inlet of the latter, on the N. and the Bosporus on the E. The city is surrounded by water on all sides excepting the W., where is an ancient and lofty double wall, stretching across the promontory. On the opposite side of the Golden Horn are Galata, Pera, and other suburbs, while on the Asiatic side of the Bosporus entrance is Scutari. Occupying the extreme point of the promontory on which the city stands is the Seraglio or palace of the Sultan. At the principal entrance is a large and lofty gate, called Bab Humayum, "the high door" or "sublime porte," from which has been derived the well-known diplomatic phrase.

Of the 300 mosques, the most remarkable are the royal mosques, of which there are about 15, esteemed the finest in the world. First among

these is the Mosque of St. Sophia, the most ancient existing Christian Church, converted into a mosque in 1453 on the capture of the city by the Turks. The streets are mostly extremely narrow, dark, dirty, and ill paved, and exceedingly crooked and tortuous, but there has been an improvement in recent years. The railway to Adrianople, runs along the shore of the Sea of Marmora to the entrance of the Golden Horn.

The harbor, the Golden Horn, which more resembles a large river than a harbor, is deep, well-sheltered, and capable of containing 1,200 large ships, which may load and unload along the quays. It is about 6 miles long, and a little more than half a mile broad at the widest part.

The suburb Galata is the principal seat of foreign commerce. Pera occupies the more elevated portion of the promontory of which Galata forms the maritime port. Constantinople was taken in 1204 by the Crusaders, who retained it until 1261. It was captured by the Turks under Mohammed II. in 1453 and made the capital of the Turkish empire, which it has since remained, though on several occasions threatened by the Russians, and saved from capture by them in 1878 only by the intervention of the powers of Europe. The most notable event in its later history was the deposition, April 27, 1909, of Sultan Abdul-Hamid II., The Lausanne Treaty, signed in July, 1923, by which the powers relinquished all claims to Constantinople. See APPENDIX. Pop. (1924) 880,998.

**Constantinople, General Councils of,** these include the second, fifth, sixth, the Trullan, and the eighth. The second was convoked by Theodosius the Great, in 381, to put down the enemies of the Nicene Creed, who had already been restrained by his decrees. The fifth general council was held by the Emperor Justinian in 553, to decide the dispute of the three doctrines of the Bishops Theodore of Mopsuestia, Theodoret, and Ibas of Edessa, who were declared heretics by the council. The sixth council, held 680–681, condemned the doctrines of the Monothelites, and declared their leaders heretics. As these two councils made no new ecclesiastical laws, the Emperor Justinian II., in 692, again summoned a general council, which was called the Trullan Council. It instituted rigid laws for the clergy, among them those fixing the rank of the patriarchs and the permission of marriage to priests, which were so offensive to the Latin Church that she rejected all the decrees of this council; but in the Greek Church they are still valid. The eighth general council (869–870) declared against the Iconoclasts, deposed Photius, and confirmed St. Ignatius in the see of Constantinople. This council is not recognized by the Greek Church.

**Constellation,** a group or configuration of stars, within certain boundaries, to which a definite name has been assigned, the name being generally expressed in its Latin for the sake of international convenience and of exactness.

**Constipation,** an undue retention of the fæces or their imperfect evacuation. When the morbid affection is but slight it is of little moment. In most cases, however, there is headache, while if the disease be protracted and severe, colic, hæmorrhoids, cutaneous eruptions, hysteria, epilepsy, or even ileus or enteritis, the last two fatal diseases, may be the result.

**Constitution,** the organic law, written or unwritten, of a body politic, though the word is used popularly with great vagueness.

**Constitution,** better known as "Old Ironsides," a frigate of the United States navy, famous for the part she played in the War of 1812. She was built in Boston in 1797–1798, and carried an armament of 32 long 24-pounders, and 20 32-pounder carronades, and was first commanded by Capt. Isaac Hull. War was declared June 18, 1812, and on July 17 the "Constitution" had a running fight with five of the enemy's vessels, which lasted three days, in an almost dead calm, but from which she escaped. This was considered a remarkable feat of seamanship. On Aug. 19, 1812, she fought and conquered the "Guerriere," one of the five ships mentioned. Dec. 29, 1812, she defeated and captured the British frigate "Java," off the coast of Brazil; Feb. 14, 1814, she captured the "Picton." and Feb. 15, 1814, she attacked and captured two British vessels, the "Cyane" and the

"Levant." In 1830 it was proposed by the Secretary of the Navy to dismantle the old ship and sell her; but this aroused general indignation, voiced in the poem "Old Ironsides," by Dr. Oliver Wendell Holmes. She was afterward used as a school ship; later as a receiving ship at Portsmouth, N. H., and in 1900 she was stationed at the navy yard, Boston.

**Constitution of the United States.** The Constitution of the United States is the product of a few great minds assembled in convention. The Convention was composed of 55 members; the Constitution was signed by 39, including Washington; 51 members took part in the debates. It is generally assumed that Washington took no part in the debates; but Professor Fiske has said in words which cannot be too often brought before the American citizen:

"It was suggested that palliatives and half measures would be far more likely to find favor with the people than any thorough-going reform, when Washington suddenly interposed with a brief but immortal speech, which ought to be blazoned in letters of gold, and posted on the wall of every American assembly that shall meet to nominate a candidate or declare a policy or pass a law, so long as the weakness of human nature shall endure. Rising from his president's chair, his tall figure drawn up to its full height, he exclaimed in tones unwontedly solemn, with suppressed emotion, 'It is too probable that no plan we propose will be adopted. Perhaps another dreadful conflict is to be sustained. If, to please the people, we offer what we ourselves disapprove, how can we afterward defend our work? Let us raise a standard to which the wise and honest can repair; the event is in the hand of God.'"

Some of the 55 took no real part in framing the Constitution, and some were obstructionists. Their objections may have exercised a wholesome influence on the Convention, but added much to the cares and perplexities of the greater men who assumed the responsibility and did the work.

At the beginning, propositions for consideration and discussion were placed before the Convention in an abstract form. These propositions were embodied in 15 resolutions, which were referred to the Committee of the Whole. They were taken up one by one, and discussed, amended, rejected, adopted, or postponed for later consideration.

At the end of two weeks of consideration and discussion (June 13), the Committee of the Whole reported the conclusions which had been reached in the form of 19 resolutions. But everything was still abstract and tentative. No line of the Constitution had yet been written; no provision had yet been agreed on. The 19 resolutions were taken up one by one, and amended, rejected, adopted, or postponed to a later date.

Other propositions from other sources were considered; and the work went on until July 26, when the conclusions of the Convention were referred to the Committee of Detail, and the work of reducing the abstract to the concrete began. The Convention then adjourned to Aug. 6, to enable the Committee to "prepare and report the Constitution."

On Aug. 6 the Committee of Detail reported and furnished every member with a printed copy of the proposed Constitution. Again the work of consideration began, and went on as before, section by section, line by line. Vexed questions were referred to special committees, amendments offered, changes made, the Committee of Detail incorporated new and additional matters in their draft until, on Sept. 8 the work of construction stopped. On that day a committee was appointed, by ballot, "to revise the style of, and arrange, the articles which had been agreed to." It reported on Sept. 12, and the work of revision again went on till Saturday, the 15th. On Monday, the 17th, the end was reached and the members of the Convention signed the Constitution. Well might Franklin exclaim in his farewell words to the Convention: "It astonishes me, sir, to find the system approaching so near to perfection as it does!" So well was the work done that nearly a century and a half finds but 19 amendments to the original work, and none of them revolutionary.

**Constitutional Convention,** in the United States, an assembly of delegates elected by popular vote to prepare or revise the constitution of a State.

**Consubstantiation,** the doctrine that in the Holy Eucharist the real body and blood of Christ are present and are of the same substance with the bread and wine.

**Consul,** two supreme magistrates, with equal authority, elected annually in ancient Rome from the time of the expulsion of the Kings and the commencement of the Republic.

In French history, a consul was one of three supreme magistrates designated first, second, and third consul, who held office between 1799 and 1804. Napoleon Bonaparte was the first consul, and his power soon absorbed that of the rest.

At the present time a consul is an officer appointed by the government of his country to reside in a foreign land, with the view of promoting the mercantile interests of the nation in whose service he is engaged.

**Consumption, Tuberculosis,** or **Phthisis,** a more or less rapidly advancing process of lung-destruction, a disease characterized by emaciation, debility, cough, hectic fever, and purulent expectoration. It is caused by a germ known as the tubercle bacillus.

**Contagion,** the communication of a disease by contact with the person laboring under it, as distinguished from infection, used to signify its transmission by means of the air without actual personal contact with the diseased person.

**Contango,** in stock-jobbing, a sum of money paid to a seller for accommodating a buyer, by carrying the engagement to pay the price of shares bought over to the next account day. In reality contango is interest paid for the loan of money for the interval between account days.

**Contarini,** the name of a noble family in Venice, and one of the 12 that elected the first Doge. Between 1043 and 1674, eight Doges were furnished by this family, which also counted among its members four patriarchs and a large number of generals, statesmen, and scholars.

**Contempt,** in law, an offense against the dignity, order, or authority of a court or legislative assembly.

**Content** and **Noncontent,** words by which assent and dissent are expressed in the British House of Lords. AYE and NO are used in the House of Commons.

**Conti, House of,** this younger branch of the princely French house of Conde took its name from the small town of Conti, near Amiens, and sprang from Armand de Bourbon, brother of the "Great Conde"; born in 1629; died in 1666.

**Continent,** the large, unbroken tracts of land on the earth, whether altogether, or entirely disconnected are included under this name. Thus Europe and Asia together, Africa, North America, South America, and Australia, may all be thus regarded. The word is also applied to the mainland of Europe, as distinguished from the British Islands.

**Continental,** pertaining or relating to a continent; as a continental system. Relating, or pertaining to, the American colonies confederated during the Revolutionary War; as, the Continental Congress. Belonging or relating to the mainland of Europe, in contradistinction to the islands belonging thereto, more especially Great Britain; as, a continental tour.

**Continental System,** a name given to the plan adopted by Napoleon I. for cutting off England from connection with the continent of Europe, and thus destroying her maritime supremacy.

**Contraband of War,** articles carried by neutrals in vessels or otherwise for the assistance of an enemy in waging war. Articles which are not ordinarily contraband are also liable to confiscation if they belong to the owner of the contraband and are mingled with contraband goods in the vehicle of conveyance or in the same packages. Where a blockade of a port is declared and successfully maintained, all articles of value become practically contraband in that they are liable to seizure and confiscation if the attempt is made to carry them into the blockaded port. According to international law, these are liable to seizure and to confiscation by order of a prize court. No recompense is made to the neutral except in the case of provisions. In the American Civil War General B. F. Butler called the fugitive slaves "contraband of war," and on that ground refused to surrender them to their masters.

**Contract,** the term usually applied to such agreements as create, or are intended to create a legal right, and corresponding liability.

**Contractility,** the property which a muscle has during life to contract or shorten itself under the operation of the will, or by mechanical, electric, or other stimulus.

**Contralto,** in music, the highest voice of a male adult, or the lowest of a woman or boy; called also the Alto.

**Contravallation, Lines of,** in military language, a chain of works round a besieged place to resist the sorties of the garrison.

**Contusion,** a bruise or injury of the soft parts of the body, without breach of surface. If the skin be broken, the injury is called a contused wound.

**Convallaria,** a genus of plants, the sweet-scented Lily of the Valley.

**Convent,** the fraternity or sisterhood of an abbey or priory; a community of religious persons, whether monks or nuns.

**Conventicle,** a small gathering for religious worship. The word was applied to the schools of Wyclif. Afterward it was used of Dissenters from the Establishment in Queen Elizabeth's time, but it did not come into great prominence till the passing of the Uniformity Act in 1662. Then conventicle was employed as a term of contempt.

**Convention,** the act of coming together or assembling; the state of being assembled. The word convention has in the United States an association of ideas pregnant with all that is most important in our political history. Several times have conventions been held at which were considered questions of the very existence of the nation.

In diplomacy, a convention is equivalent to a treaty. Thus there have been conventions by the United States with the leading nations of the world to secure uniform and reciprocal action for special purposes.

**Conveyancing,** the practice of drawing deeds, leases, or other writings for transferring the title to property from one person to another, of investigating the title of the vendors and purchasers of property, and of framing those contracts which govern and define the rights and liabilities of families and individuals.

**Convocation,** an assembly of the clergy of the Protestant Episcopal Church.

**Convolvulaceæ.** The species are generally twining and milky plants, though some are erect bushes. The leaves are often undivided.



CONVOLVULUS.

**Convolvulus,** a genus of plants, common in fields and hedges, especially when the soil is light.

**Convoy,** a fleet of merchantmen under the protection of a ship or ships of war, or the ship or ships appointed to conduct and defend them from attack and capture by an enemy. In military language it is used for escort.

**Convulsion,** a diseased action of the muscular tissues characterized by violent contractions with alternate relaxations, the sensibility and voluntary motion being for a time suspended.

**Conway, Hugh,** (the pseudonym of Frederick John Fargus), an English author; born in Bristol, in 1847; died at Monte Carlo, May 15, 1885.

**Conway, Moncure Daniel,** an American author; born in Stafford county, Va., March 17, 1832. He affiliated first with the Methodists and later with the Unitarians. From 1863 to 1884 he was minister at South Place Chapel, London. Died in 1907.

**Conway, Sir William Martin,** an English explorer; born in Rochester in 1856. In 1889 he explored Egypt; in 1892 the Himalayas; in 1894 the Alps; in 1898 the western slope of the Andes; and in 1900 the eastern slope of the Andes.

**Cony, or Coney,** an old name for the rabbit; used also in the English version of the Bible. It is also in the

United States a slang term for counterfeit money.

**Cook, Clarence Chatham,** an American journalist and art critic; born in Dorchester, Mass., Sept. 8, 1828. He contributed to the New York "Tribune" a series of articles on American art, 1863–1869; subsequently was its Paris correspondent. He was editor of the "Studio" until its suspension. He died in Fishkill, N. Y., June 2, 1900.

**Cook, James,** a British seaman; born in Marton, Yorkshire, Oct. 27, 1728. After a meager education he was apprenticed to a shopkeeper in Snaith, a small town on the sea-coast. Here he acquired a taste for the sea. At the commencement of the French War in 1755, he entered the royal navy. In 1759 he was made master of the "Mercury," which belonged to the squadron sent against Quebec. In July, 1776, he sailed on an expedition to ascertain whether any communication existed between the Atlantic and Pacific Oceans in the Arctic regions. He discovered the Sandwich Islands, and to Owhyhee (now called Hawaii), one of this group, he returned from his American survey to pass the winter of 1778. In February Captain Cook sailed for Kamchatka, but was compelled by an accident to put back to Owhyhee. A boat having been stolen by one of the islanders, the captain went on shore to seize the King of Owhyhee, and keep him as a hostage till the boat was restored. The people, however, were not disposed to submit to this insult; their resistance brought on hostilities, and in attempting to reach his boat Captain Cook and some of his attendants became victims to the fury of the irritated islanders. The death of this great seaman took place Feb. 14, 1779.

**Cook, Joseph,** an American lecturer and author; born in Ticonderoga, N. Y., Jan. 26, 1838. In 1873 he began a series of "Monday Lectures" in Boston, which, endeavoring to harmonize science and religion, and discussing social and political questions, became very popular; and in 1880 he began an extended lecturing tour around the world. Besides his lectures, he published a number of works. He died in Ticonderoga, N. Y., June 24, 1901.

**Cooke, George Frederick,** an English actor; born in Westminster in 1756. His best characters were Richard, Shylock, Iago, Sir Giles Overreach, and Sir Pertinax MacSycophant. In 1810 he visited the United States and appeared before enthusiastic audiences in the chief cities. He died in New York city Sept. 26, 1811.

**Cooke, George Willis,** an American author; born in Comstock, Mich., April 23, 1848.

**Cooke, Jay,** an American financier, born in Sandusky, O., Aug. 10, 1821. He entered mercantile life at the age of 15. Becoming a banker, he founded in 1858 the house of Jay Cooke & Co., which financed the Civil War bond issues of the United States to the extent of $2,000,000,000. The house failed in 1873, causing widespread financial panic. In 1894 he re-established his fortune by Western investments. He died Feb. 16, 1905.

**Cooke, John Esten,** an American novelist; born in Winchester, Va., Nov. 3, 1830. He was an extensive contributor of stories, sketches, and verses to various periodicals, and has written many books. He died near Boyce, Va., Sept. 27, 1886.

**Cooke, Josiah Parsons,** an American chemist; born in Boston Oct. 12, 1827; died in Newport, R. I., Sept. 3, 1894.

**Cooke, Philip St. George,** an American military officer; born near Leesburg, Va., June 13, 1809. In the Mexican War he commanded a regiment in the city of Mexico, and in the Civil War he sided with the Union and greatly distinguished himself in the Peninsular campaign. He died in Detroit, Mich., March 20, 1895.

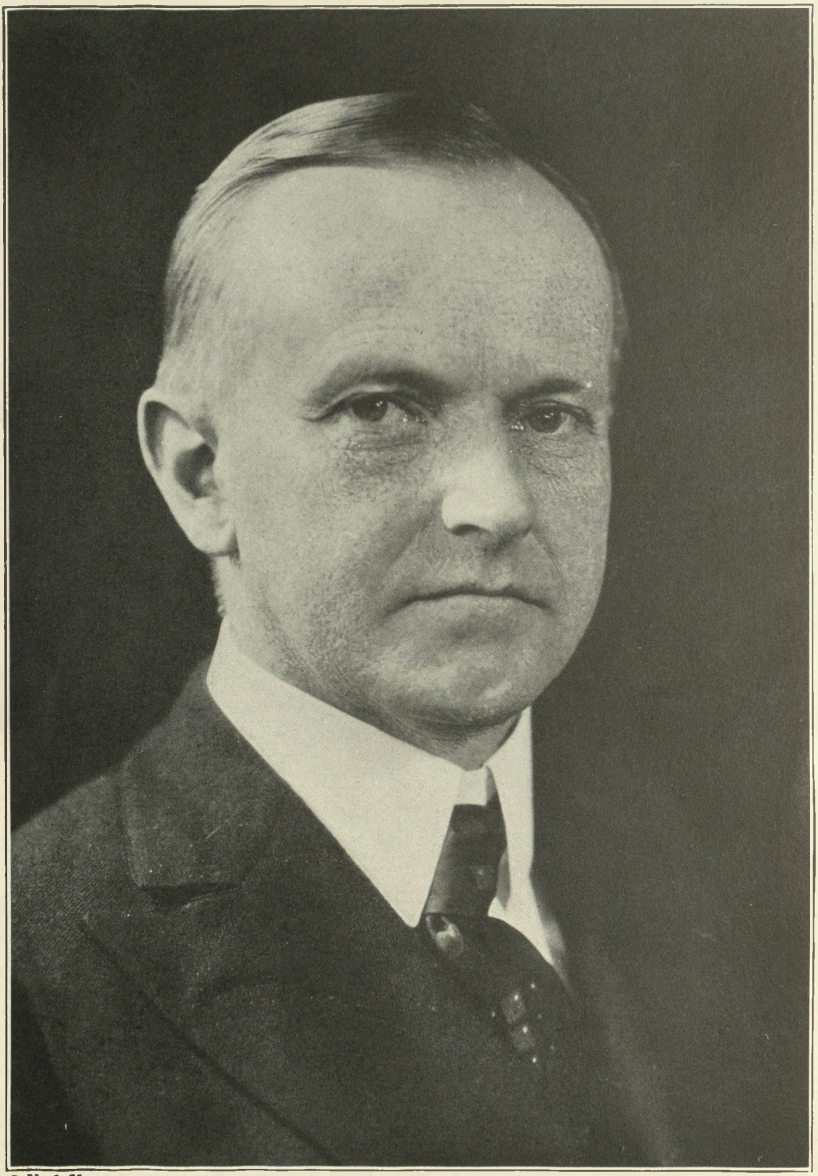
**Cooke, Mrs. Rose (Terry),** an American poet and story writer; born in West Hartford, Conn., Feb. 17, 1827. Her complete poems were published in 1888. She died in Pittsfield, Mass., July 18, 1892.

**Cook Islands,** otherwise known as the Hervey Archipelago, lie about midway between the Society and Navigator groups, and are some volcanic, some coralline. The principal members of the cluster are Mangaia, Atiou, and Raratonga. The islands were formally annexed by Great Britain in 1888.




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DOMESTIC CATS AND KITTENS



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CALVIN COOLIDGE (1872)
Thirtieth President of the United States

**Cook, Mount,** the highest peak of Australasia; is one of the Southern Alps near the center of the range, on the W. side of the South Island of New Zealand. It is 12,349 feet high.

**Coolidge, Calvin,** born at Plymouth, Vt., July 4, 1872, Thirtieth President of the United States. He graduated from Amhurst College, Mass., in 1895 with high honors. Studied law in Northampton, Mass., and admitted to the bar in 1897. Served as Mayor of Northampton in 1910. Member and president of the State Senate of Massachusetts, 1912-15; lieutenant governor, 1916-18, and Governor of Massachusetts, 1919-20. During term of Governor he came into national prominence through his vigorous action in putting down a strike of the Boston police force. Elected Vice-President on the Republican ticket of Warren G. Harding for President and Calvin Coolidge for Vice-President in campaign of 1920. On death of President Harding in August, 1923, became President of the United States. Was reëlected, with Charles G. Dawes as Vice-President in campaign of 1924 by an Electoral vote of 382 as against 136 for Davis, Democrat, and 13 for La Follette, Progressive. The popular vote was 15,748,356 for Coolidge, 8,617,454 for Davis, and 4,680,681 for La Follette. Term expires Mch. 4, 1929.

**Cooper, James Fenimore,** an American novelist; born in Burlington, N. J., Sept. 15, 1789; studied at Yale College, and after a preliminary voyage entered the American navy as a midshipman at the age of 16. He remained in the navy during three years, and acquired that knowledge of seafaring matters and sea characters which afterward constituted one of his peculiar excellences. The "Spy" (1821) and the "Pioneers" (1823) gave him a high place among novelists. Encouraged by success he gave to the world upward of 30 novels. These are distinguished by admirable delineations of nautical characters; while the prairies and desolate wilds of North America have never been delineated more truly and powerfully than in his writings.

He acted from 1826 to 1829 as consul for the United States at Lyons. He afterward visited Germany, travelled through Switzerland and Italy, and returned home in 1831. For nearly 20 years afterward he continued his literary labors, and died in Cooperstown, N. Y., Sept. 14, 1851.

**Cooper, Peter,** an American inventor, manufacturer, and philanthropist; born in New York, Feb. 12, 1791. A coachmaker by trade, he became a successful inventor and glue manufacturer, and acquired a large fortune. He built, after his own designs, the first locomotive engine constructed on this continent (1830); was one of the original promoters of the electric telegraph, actively interested in the construction of the New York State canals, etc. He was the candidate of the "Greenback" Party for President in 1876. He is best known by the institution that was dearest to his own heart, the "Cooper Union" of New York, founded for the instruction of the industrial classes. He died in New York city, April 4, 1883. A monument has been erected to him in that city.

**Cooper, Samuel,** an American military officer; born in Hackensack, N. J., June 12, 1798. He was graduated at the United States Military Academy in 1815 and was brevetted colonel for meritorious service during the Mexican War. In 1852 he was appointed Adjutant-General of the army. He resigned this commission at the outbreak of the Civil War and tendered his services to the Confederacy, under which he became Adjutant-General and Inspector-General of the army. He died in Cameron, Va., Dec. 3, 1876.

**Cooper, Susan Fenimore,** an American author; daughter of James Fenimore Cooper; born in Scarsdale, N. Y., in 1813. During the last years of her father's life she was his secretary and amanuensis. She died in Cooperstown, N. Y., Dec. 31, 1894.

**Cooperage,** the art of making vessels of pieces of wood bound together by hoops. It is a very ancient art, such vessels having been in use among the Romans at the period of the Christian era.

**Coöperation,** in modern parlance the association of people for the accomplishment of any desired end, especially the association of working people for the management of their

industrial interests in store, workshop, or other undertaking, and the equitable distribution of profits. The advantages of coöperation consist in the lower prices paid for the ordinary articles of life and of manufacture, the common use of capital, machines, buildings, water power, and in common production.

In the United States coöperation has made comparatively slow progress. In 1886 coöperative business in New England include creameries, banks, and building associations. A coöperative coopering association was established in Minneapolis in 1874. In 1882 the students of Harvard University formed a society for supplying themselves with books, stationery, and other articles. It has been a great success and has been imitated at Yale and other colleges. At the congress held Aug. 26, 1898, at Karlsruhe, the number of societies reported was 11,854, including 8,451 coöperative banks, 716 coöperative dairies, and 647 other societies. These have since been considerably increased So far as it has gone the movement has been a real and effectual training for the intelligence, business capacity, and moral character of the workmen. It has taught them thrift, foresight, self-control, and the habit of harmonious combination for common ends.

**Cooper Union,** or **Cooper Institute,** an institute founded in New York city in 1857 by Peter Cooper. Its object is to provide free schools of art and science, and free reading rooms and library for the working classes. There are lecture courses, a museum, an art gallery, and a library of 31,000 volumes, with a reading room containing current numbers of nearly 500 magazines and newspapers. The Institute was built at a cost of $630,000 and was endowed by Mr. Cooper with $300,000. It has received additional gifts from time to time from Edward Cooper and Abram S. Hewitt, and in 1899 Andrew Carnegie gave it $600,000 for the founding of a mechanical day art school and other purposes.

**Coote, Sir Eyre,** a British military officer; born in County Limerick, Ireland, in 1726; entered the army at an early age; and from 1754 to 1762 served in India. His capture of Pondicherry in 1761 completed the downfall of the French in India. Coote returned to England, and was knighted in 1771. In 1779 he assumed the command-in-chief in India, with the rank of lieutenant-general, and in 1781 he routed Hyder Ali. He died in Madras, April 26, 1783.

**Coote, Sir Eyre,** a British military officer; nephew of the famous general of the same name; born in 1762. He was at the battle of Brooklyn and in other campaigns of the American Revolutionary War until the surrender of Yorktown; became major-general and commander of Dover in 1798; and was made commander-in-chief of the Island of Jamaica in 1805. He died in 1824.

**Coote, Richard,** first Earl of Bellamont in the peerage of Ireland; born in 1636. In 1695 he was appointed Colonial governor of New England, and was given special authority to arrest pirates. An expedition was fitted out with Capt. Kidd in command, but the latter's own piratical acts caused his arrest in Boston, whence he was sent to England for trial. He died in New York March 5, 1701.

**Copacabana,** a small peninsula in the S. part of Lake Titicaca, Peru, which was a sacred place of the Incas, and where many ruins of their temples and other buildings can still be seen. Thousands of pilgrims yearly visit the chapel there, which contains an alleged miraculous painting of the Virgin.

**Copaiba,** the balsam or oleo-resin obtained from incisions made in the trunk of species of copaifera. Copaiba is about the consistence of olive-oil, light in color and transparent, with a peculiar odor, and an aromatic taste.

**Copal,** a resin produced by a plant which grows in Mexico. It is obtained in rounded, nearly transparent, masses; is brittle and colorless, or slightly yellow. It is made into varnish by mixing with oils.

**Copalchi Bark,** a bark resembling cascarilla bark in its properties, and produced by a shrub of the same genus, a native of Central America. The bark is in quills a foot or two in length, and is much used as a substitute for cinchona in Mexico. It contains a minute proportion of a bitter alkaloid resembling quinine.

**Coparcenary,** in law, partnership in inheritance; joint heirship in which each is entitled to a distinct share of the benefits, while the property remains undivided.

**Cope,** an ecclesiastical vestment resembling a cloak. It takes its name from the cappa or hood.

**Cope, Charles West,** an English painter; born in 1811. He executed eight frescoes from English history of the 17th century for the House of Lords, while his other works were numerous, the subjects being historical, romantic, or domestic. He died in Bournemouth, Aug. 21, 1890.

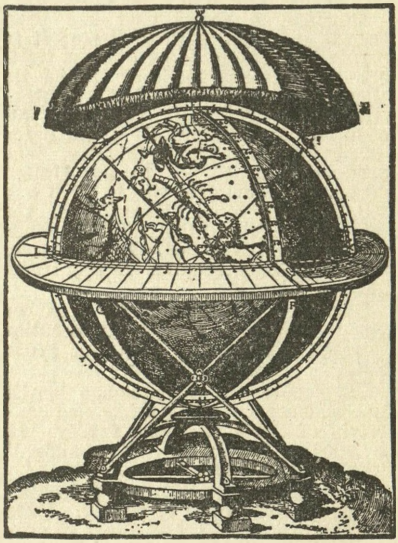
**Cope, Edward Drinker,** an American naturalist and comparative anatomist; born in Philadelphia, July 28, 1840. He was for many years Curator and Corresponding Secretary of the Academy of Natural Sciences. He published a number of papers on the subject of evolution, which are to be found in the "Proceedings" of the Philadelphia Scientific Societies and in other works. He was a member of the National Academy of Science, and, together with Prof. A. S. Packard, was editor of the "American Naturalist." He received the Bigsby gold medal of the Geological Society of London in 1879, in recognition of his services in the field of vertebrate palæontology. Died in Philadelphia, April 12, 1897.

**Copeck** (a lance), a Russian copper coin, so called from the impression of St. George bearing a lance. It is equal to about three-eighths of an English penny.

**Copenhagen,** (Merchants' Haven), the capital of Denmark; situated on the shore of the island of Zealand, in the Sound, which is here about 12 miles broad; an outlying portion, Christianshavn, stands at the N. end of the island of Amager or Amak, which is separated from Zealand by a narrow arm of the sea.

Copenhagen is the center, not only of Danish, but Northern literature and art, and is the seat of a number of societies for the advancement of these in all their branches, among which are the Royal Society, founded in 1742: and the Royal Society of Northern Antiquaries, founded in 1825; as well as agricultural, geographical, and other societies. The royal library contains 500,000 volumes, besides great treasures of Sanskrit and other MSS. In 1888 an international exhibition was held here. Pop. (1922) without suburbs, 565,000; with suburbs, 675,000.

**Copernicus, or Koppernigk, Nicholas,** founder of modern astronomy; born in Thorn, Poland, Feb. 19, 1473. His father was a Pole and his mother a German. From a school in Thorn Copernicus went to Cracow, where he studied medicine, theology, mathematics, and astronomy. In 1496, at the age of 23, he went to Italy. At Bologna he resided about two years, studying canon law and astronomy.



GLOBE OF COPERNICUS.

He now applied his whole strength to the study of astronomy, which at this time was dominated by the system of Claudius Ptolemy, and he latterly came to the following conclusions: That the sun was the center of the system; that the earth was a planet like Mars and Venus; and that all the planets revolve round the sun in the following order: Mercury in 87 days, Venus in 224, the Earth in 365, Mars in one year and 321 days, Jupiter in 11 years, and Saturn in 29 years. In

his immortal work, dedicated to the Pope, Paul III., "De Orbium cœlestium Revolutionibus," his system is developed. Prohibition, however, was issued from the Vatican in 1616 against Copernicus' book, and it was not till 200 years after its publication, in 1757, that the papal court annulled the decree. He died in Frauenburg, May 24, 1543.

**Copley, John Singleton,** a distinguished artist born 1737, in Boston, Massachusetts, died in 1815, in London where he had settled in 1776. He was elected a member of the Royal Academy in 1779. His most celebrated picture is the "Death of Lord Chatham."

**Copper,** a metal that has been known from the earliest times; it is regularly referred to by ancient writers, and articles made of it and its alloys — weapons, tools, domestic utensils, coins, ornaments, etc., from all countries and apparently of all dates —remain abundantly to this day. The production of copper in the United States from domestic ores in 1923 was 640,625 long tons. Exports for the year 1924 totaled 1,000,947,545 pounds valued at $143,610,964. Imports were valued at $100,108,314, mostly from Chile and Mexico.

**Copperas,** sulphate of iron or green vitriol, a salt of a peculiar astringent taste and of a fine green color.

**Copper-head,** a venomous North American serpent, the Ancistrodon contortrix of the rattlesnake family. It is known locally as, "red-adder," "copper-belly," and "cotton-mouth."

**Copper Poisoning,** poisoning caused by some form of copper. Pure copper is innocuous, but alloys of copper, or salts of copper, are poisonous. The poisonous alloys are those with zinc and tin, known as brass and bronze respectively, and compounds of copper with lead or arsenic.

**Coppinger, John Joseph,** an American soldier; b. in Ireland Oct. 11, 1834. He came to the United States in 1861 and was given a commission in the Union army, rising to the rank of Brigadier-General in the regular army in 1895. In the war with Spain, as Major-General of volunteers, he commanded the 4th Army Corps in Porto Rico. He married Alica, daughter of James G. Blaine; retired in 1898; died in 1909.

**Coprolite,** the dung of various animals found fossil, and sometimes so perfect as to indicate, not merely what the several species fed upon, but also the dimensions, form, and structure of the stomach and intestinal canal.

**Copt,** one belonging to the Coptic Church; one of the old Egyptian race, though perhaps with a dash of Greek, Nubian, or Abyssinian blood.

**Coptic,** pertaining to the people called Copts, or to their sect. The Coptic language was the language not of the old Egyptians who built the pyramids and covered monuments and temples with hieroglyphics, but of their successors subsequent to the introduction of Christianity. Theirs bore to the old Egyptian language a relation like that of Italian to Latin.

**Copway, George,** native name, Kah-ge-ga-gaw-bowh; an Indian journalist; born in Michigan in 1818. He belonged to the Ojibway tribe and was settled in New York. He died about 1869.

**Copyhold,** in English law, a tenure of land by copy from the court rolls belonging to a manor.

**Copying,** a term in general use for a great many different processes, but may be described generally as the reproduction of any drawing, map, or other work of art.

**Copyright,** the exclusive right of property in any intellectual production afforded by the law for a limited number of years to the originator of any written or printed composition or work of art, or to his heirs and assigns, whereby persons unauthorized are prevented from selling copies. The latest copyright law of the United States became effective on July 1, 1909.

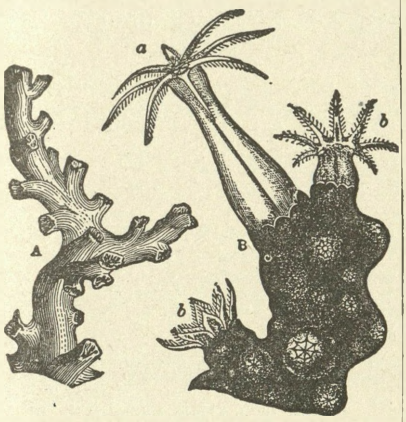
**Coquelin, Benoit Constant,** a French actor; born in Boulogne, Jan. 23, 1841; made his debut at the Theatre Francais, Dec. 7, 1860. For over a quarter of a century he played there with unbroken success. He appeared in 1887 in London, in 1888 in the United States. Died Jan. 26, 1909.

**Coquilla Nut,** the seed of the piassava or piacaba palm, one of the cocoanut group, a native of Brazil.

The nuts are very hard, and are used for making umbrella handles, etc.

**Coracle,** a kind of boat in use among fishermen, from the earliest times. It is light and capable of being carried on the shoulder by one man.

**Coral,** the name applied to the stony structures secreted by many of the actinozoa, and applied to the animals themselves. The coral of commerce is the production of various polyps, and is of different colors and internal structure The red, pink, and black sorts are the most highly prized. The coral fishery is carried on in various parts of the Mediterranean. The




CORAL.

A, branch of Dendrophyllia; B, part of a stock of red coral, with (*a*) fully extended polyp and (*b, b*) two polyps, partly extended.

coral is brought up from the bottom by means of net-work bags with wide meshes, attached to cross-beams of wood that are let down from a vessel by a line. Coral is capable of taking a good polish, but is not susceptible of receiving the finer execution of a gem.

**Coral Snake,** small venomous snakes in the same family as the cobra. The typical species frequents woods and thickets in South America.

**Corbel,** a form of bracket used in Gothic architecture for the purpose of supporting the ends of timbers, arches, parapets, floors, cornices, etc. It consists of a projecting block of stone, usually carved in a fantastic manner, and having a receding face.

**Corbin, Henry Clark,** an American military officer; born in Clermont county, O., Sept. 15, 1842. He was educated in the common school, studied law, and entered the Union army in 1862 as lieutenant of volunteers, rising for gallantry to the brevet rank of Brigadier-General. Entering the regular army as lieutenant in 1866 he advanced through the grades to that of Adjutant-General in 1898 with rank of Brigadier-General; was appointed a Major-General, U. S. V., the same year; promoted to Major-General, U. S. A., in 1899; died Sept. 8, 1909.

**Corcoran, Michael,** an Irish-American soldier; born in Sligo, Sept. 21, 1827. He came to the United States in 1849. He entered the 69th Regiment, N. G. S. N. Y., as a private and rose to the colonelcy; was court-martialed for refusing to parade his troops in honor of the Prince of Wales in 1860. He commanded his regiment at Bull Run; organized the Corcoran Legion in 1863, which held the enemy in check at Norfolk. He was killed near Fairfax Court House, Dec. 22, 1863.

**Corcoran, William Wilson,** an American banker; born in Georgetown, D. C., Dec. 27, 1798. He engaged in the banking business and accumulated a large fortune. He founded the Corcoran Art Gallery at Washington, where he died Feb. 24, 1888.

**Cordage.** The word "cordage" is used in a comprehensive sense to include all sizes and varieties of the article from binder twine to a cable 15 inches in circumference, though strictly speaking the term is hardly applicable to a rope that is less than half an inch in diameter. The materials employed embrace hemp, flax, manila, jute, and other vegetable fibers.

**Corday,** or **Corday d'Armans, Marie Anne Charlotte,** a young Frenchwoman of great beauty and courage, who became the murderess of the revolutionist Marat. She was born in St. Saturnin, near Seez, in Normandy, in 1768, the granddaughter of the poet Corneille. Marat appeared to her the master-spirit of the atrocities perpetrated or threatened, and she de-

termined to rid the country of him. She left her home, and arriving in Paris went to Marat's house, but was not admitted. She purchased a large knife, and July 13, 1793 procured admittance to Marat, with this weapon concealed under her garments. She with desperate determination, at once plunged her knife into his bosom, and he instantly expired. She was condemned, and guillotined, July 17, 1793.

**Cordelier,** a fraternity of monks belonging to the Order of St. Francis. They arose in the 13th century. They are called also Friars Minor, and were the strictest branch of the Franciscans. The word was also given to a political club which during the first French Revolution met in a chapel which had been built by the Cordeliers. It took part in executing all the violent measures to which the extreme revolutionists had recourse.

**Cordilleras,** a name applied in America to various chains of mountains. The Cordilleras of South America are described under Andes; and the Rocky Mountains are the Cordilleras of North America.

**Cordite,** an explosive, the component parts of which are nitroglycerin, gun cotton, and mineral jelly. Acetone dissolves this combination. One of the features that makes cordite valuable is that its two ingredients, which by themselves are dangerous to handle, are almost harmless combined. While in a plastic state it is pressed through a die in the form of a cord and wound upon reels to dry. This cord is made of various thicknesses to suit the arm for which it is designed.

**Cordoba,** a central province of the Argentine Republic, mostly pampa land, rising to the Sierras de Cordoba and de Pocho in the W. Area, 66,912 square miles; pop. (1915) 598,545. Copper and silver are mined, but cattle-raising and agriculture are the chief industries. The climate is healthful, but very dry; the temperature ranges from 18° to 107° F. The capital, Cordoba, lies in the valley of Rio Primero, 246 miles W.N.W. of Rosario. Founded by Cabrera in 1573, the town was famous during the Spanish occupation as the centre of the Jesuit missions in South America. Pop. (1923) 156,000.

**Cordoba,** a town of Mexico, 66 miles W. S. W. of Vera Cruz. Pop. (Est.) 11,000.

**Cordoba,** an ancient city on the Guadalquivir, in Andalusia, Spain; capital of a province of the same name. A part of the town is of Roman, a part of Moorish origin; the streets are narrow and crooked; the principal square, however is distinguished for its size and the beauty of its colonnade. The cathedral is a splendid building, originally a mosque, erected in the 8th century. It has always carried on considerable trade; and under the Moors the leather exclusively manufactured there (cordovan) was exported in all directions. Cordoba, founded by the Romans, became the capital of Arabian Spain, and is said to have had a pop. of 1,000,000; pop. (Est.) 71,000. With the decay of the Moorish empire it fell to Ferdinand III. of Castile.

**Cordon Bleu,** a knight of the ancient French Order of the Holy Ghost, at one time the most aristocratic order in the kingdom, whose decoration was attached to a blue ribbon or baldric.

**Cordon Grand,** a term applied to a member of any grade of the French Legion of Honor, because the cross of the order is always suspended from a broad ribbon.

**Cordova, Francisco Hernandez de,** a Spanish soldier and explorer; born about 1475. In 1514 he went to Panama with Pedrarias and was sent by him to take possession of Nicaragua. He founded Granada, Leon, and other towns, and discovered the outlet of the lake. He was afterward accused of disloyalty in trying to set up an independent government, and was seized by Pedrarias and beheaded, in March, 1526.

**Corelli, Marie,** an English author; born in Italy in 1864. In infancy she was adopted by Dr. Charles Mackay, the author. She was educated in London, and on beginning her literary career adopted as a pen name that which subsequently became, her legal name.

**Corfu** (anciently Corcyra), a Greek island in the Mediterranean, the most northerly of the Ionian Islands, at the mouth of the Adriatic, near the coast of Albania, about 40 miles long,

and from 15 to 20 wide; square miles, 431. A Corinthian colony settled in the islands in the 8th century B. C. The Venetians possessed Corfu from 1386 to 1797, the British from 1815 to 1864. Pop. (Est.) 101,000. Corfu, the capital, is finely situated on a promontory which terminates in a huge insulated rock crowned by the citadel. Pop. (Est.) 31,000.

**Coriander,** an umbelliferous plant. It has escaped from cultivation and become wild in many places. It is a native of Southern Europe and the Levant.

**Corinth,** a famous city of Greece within the Morea (ancient Peloponnesus), near the isthmus of the same name, between the gulfs of Lepanto on the W., and of Ægina on the E., 48 miles W. of Athens. Corinth was destroyed by an earthquake in 1858, and the present town is called New Corinth. It has few remains of its ancient splendor. The traces of the ancient walls are still discernible, but the principal monument of antiquity is the citadel or Acrocorinthus.

**Corinth, Isthmus of,** the isthmus which connects the Morea (Peloponnesus) with Northern Greece, varying in width from 4 to 8 miles. A canal, about 4 miles long, was constructed across the isthmus in 1882–1893, which enables vessels to sail from the Archipelago to the Adriatic without rounding Cape Matapan.

**Corinthian Order,** that order of Grecian architecture of which the most characteristic feature is the capital of the column, which is adorned with beautifully carved acanthus leaves, but varies considerably in minor details.

**Corinthians, Epistles to the,** two epistles addressed to the Church at Corinth about A. D. 57 or 58, which have been admitted as genuine writings of St. Paul by even the most critical assailants of the New Testament canon. They are most instructive from the insight which they furnish into the character of St. Paul himself, and the constitution, parties, and heresies of the apostolic Church.

**Coriolanus, Caius,** or **Cnæus Marcius,** a Roman patrician, surnamed Coriolanus from his heroism at the capture of the Volscian town of Corioli (493 B. C.).

**Cork,** a city in the S. of Ireland, capital of the county of Cork, situated on the river Lee. It is 15 miles from the sea, and besides an upper harbor at the city itself, and quays extending over four miles in length, there is a lower harbor at Queenstown, 11 miles below. The entrance, deep and narrow, is strongly fortified on each side. Cork is the third city in Ireland. There is a naval dockyard at Haulbowline, an island within Cork harbor. Pop. (Est.) 78,000; Parliamentary borough, (Est.) 105,000.

**Cork,** the outer layer of bark of the cork oak. It is a very elastic tissue consisting of thin-walled nearly cubical cells. It does not peel off, but often contains long clefts. It forms a protection to the subjacent cells from injurious influences. The manufacture of corks and other appliances in which cork is used is an important American industry.

**Corliss, George Henry,** an American inventor; born in Easton, N. Y., June 2, 1817. The construction of stationary steam-engines was revolutionized by his improvements and a single engine made by him moved all the machinery in the Centennial Exposition of 1876. He died in Providence, R. I., Feb. 21, 1888. Much of the credit for Mr. Corliss' achievements was due to able associates of whom the world heard little.

**Cormorant,** the trivial name of a genus of aquatic birds. About 15 species of cormorant are at present known, and are distributed over the whole world, engaged in the same office —that of aiding to maintain the due balance of animal life, by consuming vast numbers of the finny tribes. Like the pelicans, to which they are closely allied in conformation and habits, the cormorants reside in numerous families near the waters whence they obtain fish.

That the services of birds, which are such excellent fishers, should be desired by man, is by no means surprising, and it is well known that the Chinese have long trained cormorants to fish for them. Four or five species of cormorants are known to be inhabitants or occasional visitors of the American continent; but with one exception, which is very common and breeds in Florida (though also abun-

dant in the Arctic and Antarctic circles), they are rather rare, and only seen during winter in the United States.

**Corn, Indian,** also known as MAIZE, is generally believed to be a native of the warmer parts of America, where it was cultivated by the aborigines before the discovery of Columbus. The chief corn-producing countries of the world are the United States, the Argentine Republic, Austria-Hungary, Bulgaria and Eastern Rumelia. Canada, Egypt, Italy, Rumania, Russia, and Uruguay. Corn is the most valuable cereal production of the United States. In the calendar year 1923 it was grown in 48 States. The total acreage was 114,158,000; the crop, 3,054,395,000 bushels; the farm value, $2,222,013,000. The price of corn varied throughout the year, highest, 87 cents; lowest, 67 cents. Exports, 23,135,200 bushels.

**Cornbury, Edward Hyde, Lord,** English governor of New York, was the son of the Earl of Clarendon, and one of the first officers who deserted the army of King James. King William, in gratitude for his services, appointed him governor of New York. He died in London, April 1, 1723.

**Corncracker State,** Kentucky; whose people are often called "Corncrackers."

**Cornea,** one of the coats of the eye, a transparent membrane in the forepart of it.

**Corneille, Pierre,** the father of French tragedy and classic comedy; born in Rouen in 1606, at which place his father was advocate-general. He began his dramatic career with comedy and a series of vigorous dramas, but it was not till the appearance of his next work, the famous "Cid," that Corneille's claim was recognized to a place among the great tragic poets. He died in 1684.

**Cornelius, Peter von,** a German painter; born in Dusseldorf, Sept. 23, 1783. He early exhibited a taste for art, and studied the great masters, especially Raphael. In 1811 he went to Rome, where, in conjunction with Overbeck, Veit, and other associates, he may be said to have founded a new school of German art, and revived fresco-painting in imitation of Michael Angelo and Raphael. In 1841 he was invited to Berlin by Frederick William IV., who intrusted him with the painting of the royal mausoleum or Campo Santo. He died in Berlin, March 6, 1867.

**Cornelius Nepos,** a Roman author of the first century B. C., the contemporary of Cicero and Catullus. The only extant work attributed to him is a collection of short biographies, which have long been a favorite school-book.

**Cornell, Ezra,** an American philanthropist; born in Westchester Landing, N. Y., Jan. 11, 1807. He accumulated a large fortune and is best known as the founder of Cornell University. He began life as a mechanic and miller at Ithaca, N. Y., and subsequently became a contractor for the erection of telegraph lines. He died in Ithaca, N. Y., Dec. 9, 1874.

**Cornell University,** a non-sectarian, co-educational institution, at Ithaca, N. Y., owing its origin to the Land Grant Act of Congress of 1862. It is named in honor of the late Ezra Cornell, who promised the State $500,000 with which to erect buildings for the new university, the terms of the land grant forbidding the use of its proceeds for that particular purpose, on condition that it should be located at Ithaca. His gifts amounted in all, however, to about $750,000. The University received besides Mr. Cornell's endowment, 990,000 acres of public domain, and large gifts from various donors.

**Cornet-a-Piston,** a metallic wind-instrument of the trumpet class, furnished with valves and stoppers. Its quality is midway between that of the bugle and the trumpet.

**Corneto,** a picturesque, medieval-looking town of Central Italy, 12 miles N. of Civita Vecchia, 3 miles from the Mediterranean. The painted Etruscan tombs, of which some 20 are specially interesting, were known in the 18th century; but it is mainly since 1842 that they have been examined; valuable new discoveries were made during excavations in 1881–1882.

**Corn Flour,** a name applied to the finely ground flour of maize or Indian corn; also known in the United States as corn meal.

**Corn Flower,** a well-known composite weed of cornfields, universally known and admired for the beauty of



CORN FLOWER.

its wreath-like circle of outer barren florets, and the splendid deep azure of their hue.

**Corning,** city and one of the capitals of Steuben county, N. Y.; on the Chemung river and the Erie and other railroads; 17 miles N. W. of Elmira; is in a tobacco, buckwheat, potato, hay, and grain section; has extensive lumber and coal interests; and manufactures brick and terra cotta, glass, flour, shirts, and stoves. Pop. (1920) 15,802.

**Corning, Erastus,** an American merchant, born in Norwich, Conn., Dec. 14, 1794. He was a member of Congress in 1857–59 and 1861–63, and regent of the University of New York in 1833; died in 1872.

**Cornish Language,** a Celtic dialect formerly spoken in Cornwall.

**Corn Laws,** enactments of the British Parliament, relating corn.

**Cornwall,** a town, port of entry, and capital of Stormont district, Ontario, Canada; on the St. Lawrence river and Grand Trunk and other railroads; 57 miles S. E. of Ottawa; ships produce and stone; and manufactures cotton and woolen goods. Pop. (1921) 8,000.

**Cornwallis, Charles, Marquis,** an English military commander; born in Brome, Suffolk, Dec. 31, 1737. He acted a conspicuous part in the American war. After gaining the battles of Camden and Guilford, he determined to invade Virginia; but, being surrounded by the American and French forces, he and his army were made prisoners at Yorktown. In 1786 he was made Governor-General of India. Having performed an important service, Lord Cornwallis returned to England, was raised to the rank of marquis, and made Master-General of Ordnance. In 1798 he was sent to Ireland as Lord-Lieutenant; and in the trying and terrible scenes of the rebellion so conducted himself as to gain the good opinion of the public, while vigorously upholding and vindicating the laws. In 1801 he was sent on a mission to France, where, in 1802, he signed the peace of Amiens. In 1804, he was a second time appointed Governor-General of India; but soon after his arrival in India he died in Ghazepore, Oct. 5, 1805.

**Cornwallis, Kinahan,** an English-American novelist; born in England in 1835. He came to the United States about 1860.

**Corolla,** the inner whorl of two series of floral envelopes, occurring in the more highly developed plants.

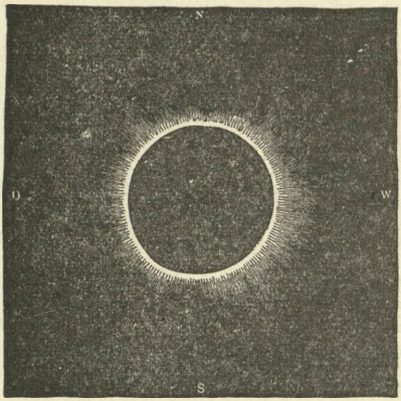
**Corollary,** a proposition the truth of which appears so clearly from the proof of another proposition as not to require separate demonstration.

**Coromandel Coast,** the E. coast of the Indian peninsula.

**Coromandel Wood,** the wood of a tree found in Ceylon. Its ground color is chocolate brown, with black stripes and marks; it is hard, turns well, and makes very handsome furniture.

**Corona** (a crown), in astronomy, a halo or luminous circle round one of the heavenly bodies; specifically the portion of the aureola observed during total eclipses of the sun, which lies outside the chromosphere or region of colored prominences. In botany the corona is an appendage of the corolla in some flowers, coming as it were between the corolla and the stamens, well seen in the cup of the daffodil.

In architecture it is the lower member of the projecting part of a cornice.



CORONA OF THE SUN.

**Coronach,** a name formerly used for the funeral dirge among the Irish and Scottish highlanders.

**Coronado, Francisco Vasquez,** a Spanish explorer in what is now Arizona, New Mexico, and Nebraska. His birth date is not known. He died in 1549, fourteen years after arriving in America.

**Coroner,** a functionary whose name coroner—anciently coronator, from Lat. corona—indicates that his authority in England was derived directly from the crown. His office is very ancient, mention being made of it in A. D. 925. His court is a court of record in which, after sight of the body of one who has died in prison, or so suddenly that suspicions of violence may be excited, a jury summoned for the purpose pronounces a decision as to the cause of death. In some States the office had been abolished, in favor of a Medical Examiner who performs the duties.

**Coronium,** the name given to an element which is thought to be a substance with a vapor density far smaller than that of hydrogen, which is by far the lightest body with which we are familiar. It is supposed to be a permanent component of the solar system, totally distinct from any element known to terrestrial chemistry.

**Corot, Jean-Baptiste-Camille,** a French artist; born in Paris, July 20, 1796; died in Paris, Feb. 23, 1875.

**Corozo Nut,** the seed of a palm, a native of tropical America, the hardened albumen of which is used by turners under the name of vegetable ivory.

**Corporal,** a petty non-commissioned officer ranking immediately under a sergeant, and just above the ordinary rank and file. He has charge of one of the squads of the company, places and relieves sentinels, and keeps good order in the guard. The corporal of a ship is an officer in charge of setting the watches and sentries, and relieving them; who sees that all the soldiers and sailors keep their arms neat and clean, and teaches them how to use them. He has a mate under him.

**Corporation,** a corporate body legally empowered to act as a single individual, and having a common seal.

Corporations are liable to the ordinary laws and treaties of the country, but are not citizens in the sense of exercising a political or municipal franchise. United States law has also had occasion to emphasize the distinction between a public corporation which may be affected by legislation, and a private corporation. Further, according to United States law, the franchises of a corporation are treated as realizable assets for creditors. The amount of property which may be held by a corporation in the United States is frequently limited in the act or charter.

**Corpulence, or Corpulency,** grossness or fleshiness of body.

**Corpus Christi,** city, health and pleasure resort, and capital of Neuces county, Tex.; on Corpus Christi bay and several railroads; 200 miles S. W. of Galveston; is in an agricultural and stock-raising section; has extensive fisheries; and ships livestock, and oysters. Pop. (1920) 10,522.

**Corpus Christi Festival,** the most splendid festival of the Roman Catholic Church. It was instituted in 1264, in honor of the Consecrated Host and with a view to its adoration, by Pope Urban IV., who appointed

for its celebration the Thursday after the festival of the Trinity, and promised to all the penitent who took part in it indulgence for a period of from 40 to 100 days. The festival is chiefly distinguished by magnificent processions. In France it is known as the Fete Dieu; in German, as the Fronleichnamsfest.

**Corpuscle,** minute solid microscopic bodies found in the blood. They are of two kinds, (1) colored corpuscles, known also as the red particles or the red globules; and (2) the colorless, known also as the white or pale corpuscles. The former are the more numerous.

**Corpuscular Theory of Light,** the older theory, which explained the phenomena of light by supposing that a luminous body emits excessively minute particles of matter, corpuscles as they were called, which striking the eye produce the sensation of light. This theory has long been displaced by the undulatory theory.

**Corpus Juris,** (body of law), a name given to certain collections of laws. The name of Corpus Juris Civilis (body of civil law) in particular was bestowed in the 12th century on the general body of legal works drawn up at the orders of Justinian, viz., the Institutes, Pandects, Code and Novels; together with the collections bearing on the feudal law appended to them. With the canonical or papal laws the same mode of proceediongs has been adopted, and the Corpus Juris Canonici compiled.

**Corral,** in South America and elsewhere, a yard or stockade for cattle.

**Corregidor,** the name given in Spain to the principal magistrate of a town, appointed by the king.

**Corregidor,** a small island commanding the entrance to Manila bay, P. I. It is 3 miles long by 1 mile wide, rising abruptly from the sea to a height of 635 feet. There is a lighthouse at the summit. The island was strongly fortified by the Spaniards in the 18th century, but the defenses were not kept up. When Admiral Dewey made his dash into Manila bay, May 1, 1898, he steamed past this island, which was supposed to be very strongly fortified, and the base of operations for the mines and torpedoes with which the bay was declared to be thickly strewn. The forts have been strengthened by the United States government, which established an arsenal here in 1900. Pop. (Est.) about 2,500.

**Correggio, Antonio Allegri,** frequently called ANTONIO DA CORREGGIO, from the place of his birth; an Italian painter; born in Correggio, Modena, in 1494. He died there, March 5, 1534.

**Corrigan, Michael Augustine,** an American clergyman; born in Newark, N. J., Aug. 13, 1839. He was educated at the Roman Catholic Theological Seminaries of St. Mary's and Mount St. Mary's and at the American College in Rome, where he was ordained to the priesthood in 1864. He became Archbishop of New York, 1885. He died in New York city May 5, 1902.

**Corrodi, August,** a Swiss poet; born in Zurich, in 1826; died in 1885.

**Corrosives,** in surgery, substances which eat away whatever part of the body they are applied to; such are glacial acetic acid, burned alum, white precipitate of mercury, red precipitate of mercury, butter of antimony, etc.

**Corrosive Sublimate,** also called mercuric chloride, bichloride of mercury, perchloride of mercury. It is very poisonous, and is used to preserve both animal and vegetable substances. Corrosive sublimate is a powerful irritant, and is used externally in skin diseases. It is also much in use by surgeons in an antiseptic spray and as a cleansing agent for sterilizing their operating instruments.

**Corrugated Metal,** metal that has been corrugated to give it increased rigidity and power to resist buckling and collapse.

**Corruption of Blood,** in law, the incapacity to inherit, or pass an inheritance, in consequence of an attainder to which the party has been subject. In the United States it is abolished by the Federal Constitution.

**Corsair,** a pirate; one who cruises about with an armed vessel, seizing and plundering merchant-vessels, without any commission or authority from any government.

**Corse, John Murray,** an American military officer; born in Pittsburg,

Pa., April 25, 1835. He was a Brigadier-General in 1864; commanded a division in Georgia, and upon the advance of the Confederates against Allatoona, Sherman telegraphed him, "Hold the fort for I am coming," which inspired Ira D. Sankey to compose the famous hymn beginning with these words. General Corse repulsed the enemy and accompanied Sherman on the march to the sea. He died in Winchester, Mass., April 27, 1893.

**Corset,** an article of dress laced closely round the body; a bodice; stays.

**Corselet,** a light cuirass or armor worn to protect the front of the body.

In entomology, the thorax; part of the body to which the wings and legs are attached.

**Corsica,** an island in the Mediterranean, forming the French department of the same name. The interior is traversed by a mountain chain, the culminating point of which, according to the latest surveys, is Monte Cinto, 8,891 feet high, Monte Rotondo coming next with 8,775 feet. With the exception of some marshy districts on the E. coast, the climate is very fine. Ajaccio and Bastia, are connected by railway. An insurrection in 1794, for a time restored the island to independence; but in 1796 it again fell under the dominion of France. Pop. (Est.) 291,000. The great Napoleon was born in Corsica.

**Corsicana,** city and capital of Navarro county, Tex.; on the Houston & Texas Central and other railroads; 53 miles S. E. of Dallas; is in a highly productive petroleum section; ships cotton, grain, wool, and oil; has cotton gins, compresses, and cigar factories; and is the seat of a State Orphan Asylum and an Odd Fellows' Home. Pop. (1920) 11,356.

**Corson, Juliet,** an American cooking reformer; born in Roxbury, Mass., Feb. 14, 1842. She established the New York School of Cookery in 1876 and soon achieved celebrity by her writings on cookery and domestic science, her first success being "Fifteen-Cent Dinners," a manual for the poor. She died in New York city, June 18, 1897.

**Corssen, Wilhelm Paul,** a German philologist; born in Bremen, Jan. 20, 1820; died in Berlin, June 18, 1875.

**Cort, Henry,** inventor of the process of puddling and rolling iron; born in England, in 1740. Died 1800.

**Cortelyou, George Bruce,** first Secretary of Commerce and Labor, born in New York city, July 26, 1862. He graduated LL. B. Georgetown University, and LL. M. Columbian University. In 1900 he became sec. to Pres. Roosevelt; 1903-04, Sec. of Commerce and Labor; 1905-07, Postmaster-General; 1907–1909 Secretary of the Treasury; then in business in New York.

**Cortes,** the states of legislative assemblies of the kingdoms of Spain and Portugal, composed of the nobility, clergy, and representatives of cities.

**Cortez,** or **Cortes, Hernando,** the conqueror of Mexico; born in Estremadura, Spain, in 1485. At the age of 19 he left Spain, to seek fame and fortune in the new world. He distinguished himself under Velasquez in the conquest of Cuba; and after passing several years in that island he obtained leave from Velasquez to conduct a small expedition to the newly-discovered coast of Yucatan and Mexico. With less than 600 soldiers, and 16 horses, 10 cannon, and four falconets, he sailed, in 1519, to conquer the most powerful empire in America. He landed on the Mexican coast on Good Friday, April 21, on the spot where the city of Vera Cruz now stands. He persuaded his followers to destroy their ships, and to march inland, with no prospect but to succeed or perish. The Indian republic of Tlascala lay between him and the Mexican capital. He defeated the Tlascalans when they attacked him, and then succeeded in winning their friendship. They acted thenceforth as his zealous and faithful allies. Alarmed by the reports of the prowess of the Spaniards, and of the superhuman terrors of the arms which they wielded, Montezuma, the Mexican emperor, sought to conciliate the strangers, and received Cortez and his troops in the capital. Though they obtained lavish presents, and received courteous treatment, the treasures which they saw around them inflamed more and more the cupidity of the invaders. The sight of the idolatrous rites, and especially of the human sacrifices which the Mexicans practiced, inflamed their religious bigotry; the

ambition of Cortez thirsted after absolute conquest, and, by a bold stroke of treachery, he seized the person of the Mexican emperor. Cortez, soon after this, received a material increase of strength from a force which the Viceroy of Cuba had sent to depose him and take him prisoner, but which he partly defeated and partly persuaded to come over to him.

He now found himself plunged into a most desperate war with the native Mexicans, who rose upon the Spaniards, and assaulted them in their fortified quarters in the capital. Cortez was now, at last, obliged to evacuate the city, July 1, 1520. Encouraged by this success, the Mexicans followed the Spaniards, and fought a pitched battle with them in the open field. In this action (the battle of Otumba), Cortez gained a complete victory, which was mainly due to his own prowess. After receiving some reinforcements, he again advanced upon the Mexican capital. Guatemozin was now Emperor of Mexico, and had learned the inability of his troops to face the Europeans in the open field. He remained within the city, which Cortez besieged; and, on Aug. 13, 1521, surrendered, and the whole of its vast empire became subject to the crown of Spain. Cortez disgraced his triumph by putting the brave Guatemozin to a cruel death, an act of which he is said to have afterward deeply repented. The domestic enemies of the conqueror of Mexico had, meanwhile, been busy in their intrigues against him at the Spanish court, and in 1528 Cortez returned to Spain to face his accusers. He was coldly received, though with apparent honor; and he could not prevail on Charles V. to continue him in the governorship of Mexico. He returned to America in 1530, a powerful and wealthy noble, but without public authority. He now signalized himself in the arts of peace, in the skillful culture of his ample estate, in the introduction of the sugar-cane, and the importation of merino sheep into the province. He made also several brilliant and important voyages of discovery along the Californian and other coasts of the Pacific. In 1540 he finally returned to Spain, where he was treated by his sovereign with ungracious neglect. He died near Seville, Dec. 2, 1547.

**Cortland,** city and capital of Cortland county, N. Y.; on the Tioughnioga river and the Erie and other railroads; 36 miles S. of Syracuse; manufactures machinery, stoves, wire, carriages and trimmings, and wall paper; and is the seat of a State Normal and Training School. Pop. (1920) 13,294.

**Corunna,** a seaport of Spain, in the province of the same name in Galicia, on the N. W. coast, on a peninsula at the entrance of the Bay of Betanzos. There is a lighthouse, 92 feet high, called the Tower of Hercules, and supposed to be of Roman construction. Corunna was the port of departure of the Spanish Armada (1588), and the scene of the repulse of the French and the death of Sir John Moore (1809). Pop. (1920) 61,000.

**Corvette,** a term applied to a flush-decked vessel, ship- or bark-rigged, having only one tier of guns.

**Corvey,** or **Korvei,** a formerly renowned Benedictine abbey near Hoxter in the Prussian province of Westphalia, founded in 816; an early center of German civilization. The abbey, or castle of Corvey, as it is now called, has a rich and extensive library; but the ancient collection of the Benedictines is no longer in existence.

**Corvidæ,** a family of conirostral birds containing crows and their allies.

**Corvus, Marcus Valerius,** a Roman hero, who, according to the legends, was assisted in killing a gigantic Gaul in single combat by a raven, which picked out the eyes of his antagonist.

**Corwin, Thomas,** an American statesman and orator; born in Bourbon county, Ky., July 29, 1794. He was successively a member of Congress; governor of Ohio; United States Senator; Secretary of the Treasury; member of Congress, and United States Minister to Mexico. He died in Washington, D. C., Dec. 18, 1865.

**Corypheus,** the leader of the chorus in ancient dramas; by whom the dialogue between the chorus and the other actors of the drama was carried on, and who led in the choric song. Hence, the chief or leader of any company.

**Coryza,** a synonym for acute nasal catarrh, or "cold in the head."

**Cos,** now called STANCHIO or STANKO, an island in the Ægæan sea, on the coast of Asia Minor; area, 95 square miles; pop. 11,000. It was the birthplace of Hippocrates, and had anciently a celebrated temple of Æsculapius. In Cos was manufactured a fine, semitransparent kind of silk, much valued by the ancients. Cos is also the name of the principal town, a decayed seaport. The island yields grain, wine, silk, cotton, citrons, etc.

**Cosgrove, Henry,** an American clergyman; born in Williamsport, Pa., in 1834. He became a Roman Catholic priest in 1857, and Bishop of Davenport in 1884. Died Dec. 22, 1906.

**Coshering,** an old Irish feudal law, a custom whereby the lord was entitled to exact from his tenant food and lodging for himself and his followers at the tenant's house.

**Cosmetic,** a preparation applied externally for the purpose of preserving the bloom and beauty of youth; or for restoring those attractions when lost, or in the process of decay. Among the articles most used are lead, mercury, bismuth, antimony, and arsenic.

**Cosmogony,** the origin or creation of the world; an investigation or dissertation regarding it.

**Cosmos,** order or harmony, and hence the universe as an orderly and beautiful system.

**Cossa, Pietro,** an Italian dramatist; born in Rome in 1830; died in 1881.

**Cossacks,** tribes who inhabit the southern and eastern parts of Russia, paying no taxes, but performing instead the duty of soldiers. Nearly all of them belong to the Græco-Roman Church, to which they are strongly attached, and to the observances of which they are particularly attentive. Writers are not agreed as to the origin of this people and of their name, but they are believed to be a mixed Caucasian and Tartar race. In personal appearance the Cossacks bear a close resemblance to the Russians, but are of a more slender build, and have features which are decidedly more handsome and expressive. Each Cossack is liable to military service from the age of 18 to 50, and is obliged to furnish his own horse. They furnish the empire with one of the most valuable elements in its national army, forming a first-rate irregular cavalry, and rendering excellent service as scouts and skirmishers.

**Costa, Sir Michael,** an English musical composer and conductor; born in Naples of an old Spanish family, Feb. 4, 1810. In 1828 he went to England, and in 1839 became a naturalized British subject. He was knighted in 1869, and died in Brighton, April 29, 1884.

**Costa Rica,** a republic of Central America; bounded on the N. by Nicaragua; E. by the Caribbean Sea; S. by Colombia; W. by the Pacific Ocean; area, 23,000 square miles; pop. (1922) 485,049; capital, San José; pop. 40,337.

The interior of the country is very mountainous, the ranges reaching an altitude of 11,000 feet, and having many volcanoes. The highest point is Pico Blanco, 11,800 feet. The coast is very irregular, being indented by many large gulfs and bays, of which the Gulfs of Nicoya and Dulce are the most important.

The climate in the interior is temperate, and that on the coasts averages about 80° up to an altitude of 3,000 feet. The soil is exceedingly fertile, and the forests are extensive, yielding mahogany, cedar, rosewood, lignum-vitæ, granadilla, ebony, Brazilwood, and caoutchouc. Nearly all tropical fruits abound. Other important productions are tobacco, coffee, rice, barley, dye woods, and cotton. The mineral resources are quite extensive, but as yet they have not been systematically worked. Gold, Silver, lead, and copper exist in large quantities. Cattle raising is carried on to a large extent.

The government is purely republican in form. The President is elected for a term of four years and is assisted by a cabinet of six members. The legislative power is vested in a Chamber of 43 Representatives.

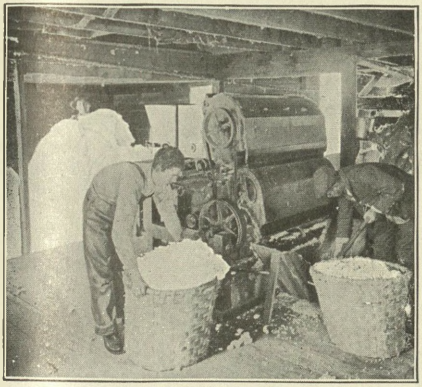
The Roman Catholic is the State religion, but there is entire religious liberty under the constitution. In 1914 there were 428 primary schools, with 34,624 pupils, and five other institutions for higher education. Public in-



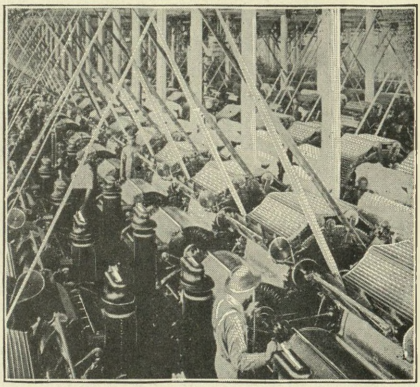
COTTON PICKING



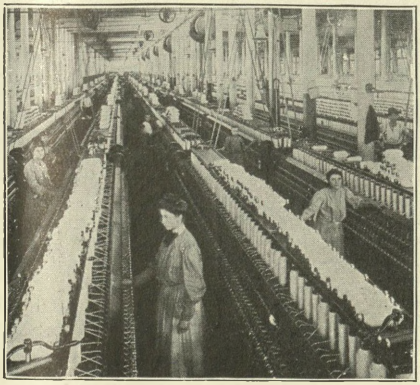
WEIGHING BALES AT GIN



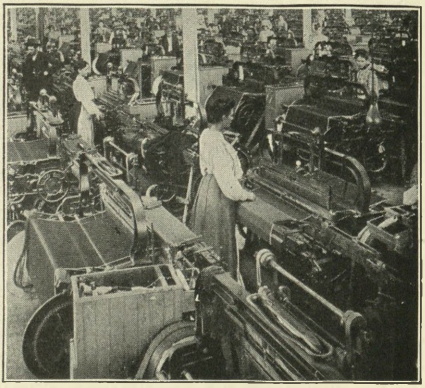
COTTON GIN



CARDING ROOM



SPINNING ROOM



WEAVING ROOM

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# COTTON INDUSTRY




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EDIBLE GRAINS

struction in all branches is rigidly enforced.

Costa Rica was discovered by Columbus in 1502 and settled in 1504. From 1824 to 1839 it was a State in the United Provinces of Central America. On the dissolution of the latter, it became an independent republic. On Dec. 20, 1907, Costa Rica joined the other Central American States in a treaty by which all agreed to submit disputed matters to a court of arbitration.

**Coster,** the usual name of Laurens Janszoon, according to the Dutch, inventor of printing, who was born in Haarlem about 1370. He is supposed to have made his great invention between the years 1420 and 1426, to have been sacristan at Haarlem, and to have died of the plague about 1440. No question has caused more discussion than that covering Coster and Gutenberg.

**Costs,** in law, are the expenses incurred by the plaintiff and defendant.

**Costume,** the style of attire characteristic of an individual, community, class, or people; the modes of clothing and personal adornment which prevail in any period or country.

**Cotes, Sara Jeanette (Duncan),** a Canadian author; born in Brantford, Ontario, Canada, in 1862. She entered journalism as a correspondent for several Canadian and American newspapers; married Everard C. Cotes, of the Indian Museum; and has lived for several years in India.

**Cotidal,** having the tides at the same moment of time. Cotidal lines are imaginary lines marked on the surface of the globe, indicating where the tides are in the same state at the same time.

**Cotillion,** a brisk dance of French origin performed by eight persons together, resembling the quadrille which superseded it. Also spelt COTILLON.

**Cotinga,** a genus of chatterers. They have beautiful plumage, and are found in South America.

**Cotner University,** a co-educational institution in Bethany, Neb.; organized in 1889, under the auspices of the Disciples of Christ.

**Cotopaxi,** the most remarkable volcanic mountain of the Andes, in Ecuador, about 60 miles N. E. of Chimborazo; lat. 0° 43′ S.; lon. 78° 40′ W.; altitude 19,500 feet. It is the most beautiful of the colossal summits of the Andes, being a perfectly symmetrical, truncated cone, presenting a uniform, unfurrowed field of snow of resplendent brightness. Several terrific eruptions of it occurred in the course of the 18th and the beginning of the 19th century.

**Cotta, Johann Friedrich, Baron von,** a German bookseller; born in 1764. He was the publisher for many great writers in Germany, including Goethe, Schiller, the Humboldts, and others. He died in 1832.

**Cottage,** originally a small house with no land attached to it. Such erections were discouraged by Old English law. No one was allowed to erect a cottage unless four acres of freehold land were attached to it; and no owner or occupant of a cottage was to allow more families than one to inhabit it.

**Cotton,** a vegetable hair or filament constituting the wing of the seed of the different species of Gossypium, a plant growing both in the temperate and tropical climates, indigenous in Asia, Africa, and South America. Both fiber and seed are produced in pods not unlike the outer shell of the walnut. The fiber consists chiefly of carbonaceous material drawn from the atmosphere, and is one of the purest forms of cellulose. It is to its spiral form that the possibility of spinning cotton is due. The fibers interlock one with another nearly to the end. They are somewhat like a twisted ribbon, a little thicker at the edges than in the middle.

All the varieties of the plant require a dry and sandy soil. Marshy ground is wholly unfit for it, and a wet season is destructive to the crops, which are besides precarious from the disease to which the plant is subject, particularly blight produced by wetness at the roots. In general it flourishes most luxuriantly and yields produce of the best quality on the coast. In the United States the average yield of cotton is about one bale for three acres, and a large proportion of the crop is grown W. of the Mississippi; although under good cultivation a bale

to the acre is very common, and by special cultivation two, three, and even four bales of 500 pounds each can be made on a single acre.

Cotton is grown as a regular staple in the United States in Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. The cotton crop for 1924, according to figures furnished by the United States Department of Agriculture, embraced 40,403,000 acres and the amount produced was 12,499,000 bales. This crop brought in market $1,563,347,000. The damage from the boll weevil was estimated at $200,000,000. In the same year there were more than 37,000,000 active cotton spindles in operation. In 1921 cotton goods were made in 1,527 establishments by 425,817 wage earners, who earned wages amounting to $340,749,958, while the value of the product was $1,330,263,117. The exports of domestic raw cotton for 1923 was 5,279,165 bales, whose market value was $807,102,507. Exports of domestic cotton goods were valued at $139,000,000. Imports of raw cotton totaled 187,365,365 lbs., valued at $49,542,688. Imports of cotton goods in 1923 were valued at $100,154,179. The world's production of cotton in 1924 totaled 19,125,000 bales, of which United States produced over one-half. Other countries producing cotton in commercial quantities are: India, Egypt, Brazil, Russia, Mexico.

**Cotton, John,** an American clergyman; born in Derby, England, Dec. 4, 1585. Upon his arrival in America he became "teacher" of the first church of Boston. He had a religious controversy with Roger Williams. Cotton was an industrious worker, and published nearly 50 books. He died in Boston, Mass., Dec. 23, 1652.

**Cotton Famine,** the destitution caused by the outbreak of the American Civil War (1861–1865) in the English cotton manufacturing districts, especially in Lancashire. The cotton supply failed on account of the blockade of the S. ports of the United States, and in consequence the mill owners finally closed their mills entirely, nearly 2,000,000 people being reduced to great distress. A Cotton District Relief Fund was started, and a Relief Act passed by Parliament, by which loans were granted to the guardians of the poor for the purpose of instituting relief works. Gradually the difficulties were overcome, and by June, 1865, the distress was at an end, greatly increased supplies of cotton having been received from Brazil, Egypt, India, and elsewhere. In 1863, in the midst of the war, three shiploads of provisions and supplies were sent to England from New York city. In 1903 serious want and destitution were caused in many British textile centers, and to a lesser degree in some American manufacturing towns, by the comparative scarcity and high price of cotton.

**Cotton Seed Oil,** a valuable oil obtained from the seed of the cotton plant, which is crushed between powerful rollers.

**Cotton Spinning.** When or where cotton was first manufactured is uncertain, but long before our era, India and other nations of the far East had a world-wide fame for its cultivation and manipulation. Cotton spinning was wonderfully developed by English inventors in the 18th century, and British laws sought by severe penalties to prevent the knowledge of these inventions from being conveyed to other countries. Since Slater brought the designs of improved English machinery for cotton manufacture in his brain to America, the development of that industry has been gigantic. There are about 152,000,000 cotton spindles in the world of which about 30,000,000 are actively in use at all times. United States operates 35,000,000 annually.

**Cotton Worm,** a caterpillar which often feeds in vast numbers on the leaves of the cotton-plant. It has a loping gait; is slightly hairy, green, dotted with black along a subdorsal yellowish line, wih black dots beneath, and changes to a pale reddish-brown moth.

**Coucal,** or **Lark-heeled Cuckoo,** a genus of common bush-birds in Africa, India, and through the Malayan Archipelago to Australia. The hind-toe is prolonged into a very long spur. Their call is loud.

**Couchant,** in heraldry, a beast lying down, with his head up. If the head is down, he is dormant.

**Couch Grass,** a grass sometimes called in books creeping wheat-grass. It is very common in fields and waste places. When occurring as a weed in corn-fields, its long, creeping root renders it difficult of extirpation.

**Couching,** an old operation for cataract, which consisted in passing a needle into the eye, and pushing the lens out of its place with it to leave the pupil of the eye clear.

**Coudert, Frederic René,** an American lawyer and expert in international law; born in New York in 1832; was graduated at Columbia College in 1850, and admitted to the New York bar in 1853. In 1892 he was appointed one of the counsel on the part of the United States before the Bering Sea Tribunal of Arbitration in Paris. On Jan. 1, 1896, President Cleveland appointed him a member of the Venezuela Boundary Commission. He was a member of the Legion of Honor and the legal representative of the French govt. in the U. S. He died Sept. 20, 1903.

**Coues, Elliott,** an American naturalist; born in Portsmouth, N. H., Sept. 9, 1842. He was connected with the Smithsonian Institute, and was author of "Key to North American Birds," etc. He died Dec. 26, 1899.

**Cougar,** the name given in Brazil to the puma, formerly called the American lion, and now the American panther. It extended formerly throughout a great part of both North and South America, but it has become nearly extinct in the former.

**Cough,** a spasmodic effort, attended with noise, to expel from the air passages of the lungs some foreign body or irritating matter, which else would injure the delicate respiratory apparatus. Properly speaking it is not a disease; it is the effort of nature to remove what may generate one; or it may be the symptoms of a disease of the lungs, liver, stomach, or intestines; or may be produced by the over-excitability of the system in the nervous temperament. At the same time, when itself violent, it may produce morbid effects.

**Coulanges, Numa Denis Fustel de,** a French historical writer; born in Paris, France, March 18, 1830; died in Passy, Sept. 12, 1889.

**Coumoundouros, Alexander,** a Greek statesman; born in 1818. He entered the Greek Chamber of Deputies in 1850, became president of that body, and was subsequently appointed a minister of State with charge of the department of finance. He was frequently prime minister of Greece. He died in 1883.

**Council,** an assembly met for deliberation, or to give advice. The term specially applies to an assembly of the representatives of independent Churches, convened for deliberation and the enactment of canons or ecclesiastical laws.

**Council Bluffs,** a city and county-seat of Pottawattamie county, Ia.; on the Missouri river, opposite Omaha, Neb., with which it is connected by two bridges, that of the Union Pacific railroad having cost over $1,000,000. It derives its name from a council held on the bluffs between the Indians and the explorers, Lewis and Clarke. It was a Mormon settlement in 1846, and was chartered as a city in 1853. Pop. (1920) 36,162.

**Council of Blood, The,** a court created in the Netherlands by the Duke of Alva, its object being to put down all agitation caused by the religious and political tyranny of Philip II. Its first session was held Sept. 20, 1567, and in less than three months it had put to death 1,800 persons.

**Council of Ten,** a secret tribunal in the old Republic of Venice, which was formed in 1310 and continued until the downfall of the republic in 1797. It was at first composed of 10 members and later of 17. It virtually ruled the State, and decreed in secret the doom of those whom it judged to be dangerous, and who were promptly and, as a rule, secretly executed.

**Council of War,** an assembly of officers of high rank called to consult with the commander-in-chief of an army or admiral of a fleet on matters of supreme importance.

**Counsel.** Applied to members of the legal profession retained in a cause.

**Count,** a title of nobility in most of the continental States of Europe, equivalent in rank to the British earl.

**Counterfeit,** to imitate with the intention of deceit, the current medium of exchange or money of a country. In the United States, the crime of counterfeiting coin or money is punishable with fine and imprisonment at hard labor for a term of from two to 10 years; and includes falsely making, forging, or counterfeiting coins or notes, postal money orders, postal cards, government stamps of all kinds, and government securities, as also importing, possessing, uttering, or passing false coins or notes with fraudulent intent. Mutilating and debasing the coin is also counterfeiting, but is not so severely punished as the making of counterfeit coins.

**Counter-irritant,** an irritant application to the external parts of the body designed to diminish, counteract, or remove some other irritation or inflammation then existing.

**Counterpoint,** in music, a term equivalent to harmony, or the writing of a carefully planned accompanying part; or that branch of the art which, a musical thought being given, teaches the development of it, by extension or embellishment, by transposition, repetition, or imitation throughout the different parts.

**Counterscarp,** that side of the ditch of a fort which is nearest to the besiegers; the other side being called the escarp or scarp.

**Countersign,** in military affairs, is a watch-word used to prevent unauthorized persons passing a line of sentries whose orders are to stop any one unable to give it.

**Country-dance** (corrupted from contra-danse), a dance accomodating so many couples as the space allows.

**County,** a subdivision of a State for the purposes of administration.

**Coup,** a French word signifying "a stroke," used in certain phrases that have become current almost universally. A coup d'état (stroke of State) means an arbitrary encroachment suddenly effected by the governing authorities upon the constitution of the State, altering or setting aside the prerogatives of other parts of the body politic. Coup de main ( a stroke of the hand) is a sudden and successful attack; coup d'œil (a stroke of the eye) is a summary view of a complicated matter; coup de théâtre is a trick of the stage; and coup de grâce is the merciful blow that puts a victim out of pain.

**Coupé,** a four-wheeled carriage carrying two inside, with a seat for the driver outside.

**Coupon,** a warrant or certificate for the periodical payment of interest on bonds issued for any term of years. The interest being payable quarterly, half-yearly, or yearly, as many coupons are attached to each bond as represent the total number of such payments to be made, with the date of payment printed on each. When a payment of interest becomes due at any particular date the holder of the bond detaches the corresponding coupon and presents it for payment.

**Courbet, Gustave** a French painter; born in Ornans, Franche-Comte, June 10, 1819. He was imprisoned and fined for having taken part in the outrages of the Commune. On his release he retired to Vevey, in Switzerland, where he died, Dec. 31, 1877.

**Couriers,** persons hired to accompany travelers abroad, whose special duty is to make all arrangements for the journey. The speaking of several languages is one of many important qualifications in a good courier.

**Courland, or Kurland,** former Russian government, now with Livonia, the federal republic of Latvia. It was formerly an independent duchy, and belonged, along with Livonia, to the Teutonic Knights. The proprietors of land are mostly German; the peasantry, who constitute the bulk of the population, of Lettish extraction. Area Livonia about 15,600 sq. m.; Courland, 10,435 sq. m. Pop. in 1922 of new republic of Litvia, 1,885,870.

**Coursing,** the hunting hares with greyhounds, which follow the game by sight, and not by scent. A pastime known as "Hare and Hounds," somewhat similar to coursing, was at one time quite popular in the United States. In this form one or more men, known as the Hares, were given a time handicap and provided with slips of paper which they dropped from time to time to show their trail. These runners were followed by others, known as Hounds, and the object was that

the Hounds should overtake the Hares before the latter returned home.

**Court of Domestic Relations,** a tribunal established in New York city in 1910; believed to be the first of its kind in existence; designed to effect a settlement of domestic troubles and a reconciliation of estranged husbands and wives, in order to check constantly-increasing divorce proceedings.

**Court of High Commission,** a court which was established in Queen Elizabeth's reign, and exercised powers like those which had been intrusted to Lord Cromwell. The judges had the power of arresting suspected persons, imprisoning, torturing them, and causing them to accuse their confederates or their friends. They could form new articles of faith, and impose them on recalcitrant consciences by compulsion of the severest and most odious kind.

**Court of Love,** a court established in France and Germany in the 12th century to decide on matters relating to love.

**Court, Presentation at,** a formal presentation to the sovereign of persons whose status entitles them to that honor. In Great Britain it takes place either at St. James' Palace, at a levee, intended for gentlemen only, or at Buckingham Palace, where both ladies and gentlemen appear.

**Courtesy, Tenure by,** in law, is where a man marries a woman seized of an estate of inheritance, and has by her issue capable of inheriting her estate. In this case, on the death of his wife he holds the lands for his life, as tenant by courtesy.

**Courtesy Title,** a title assumed by or given to any person by common consent, as an act of courtesy or respect, not of absolute right.

**Court-martial,** a court authorized by the articles of war, for the trial of all offenders in the army or navy, for military offenses. It has no jurisdiction over a citizen not employed in military service. Court-martials are classified under the headings of Summary court-martials, Regimental court-martials; and Garrison court-martials. A Court of Inquiry is of the nature of a secret court-martial.

**Courtney, Frederick,** a Canadian clergyman; born in Plymouth, England, Jan. 5, 1837. He was graduated at King's College, London, in 1863, becoming an Episcopal priest in 1865; was bishop of Nova Scotia in 1888–1904; rector of St. James', New York, in 1904–15.

**Court-plaster** (so-called because originally applied by ladies of the court as patches on the face), black, flesh-colored, or transparent silk varnished over with a solution of isinglass, used for covering slight wounds.

**Courtrai,** a fortified town of Belgium, province of West Flanders, 26 miles S. of Bruges, on the Lys. It is well built, having handsome and spacious streets, and a fine Grande Place, with several other squares. Here, in 1302, took place the "battle of spurs" between the French and Flemings. The town was in the sphere of Teutonic operations in the great World War, especially in the Flanders campaign of 1917. Pop. (Est.) 36,000.

**Couthon, Georges,** a French lawyer, president of the court of justice at Clermont; born in 1756. Becoming a member of the legislative assembly, and of the national convention, he voted for the death of Louis XVI. Sharing afterward the power and participating in the atrocities of Robespierre, he was also involved in his ruin. He was guillotined in 1794.

**Couvade,** a singular custom prevalent in ancient and modern times among many primitive races. After the birth of a child the father takes to bed, and receives the food and compliments usually given elsewhere to the mother. The custom was observed, according to Diodorus, among the Corsicans; and Strabo notices it among the Spanish Basques, by whom, as well as by the Gascons, it is still to some extent practiced. Travelers from Marco Polo downwards have met with a somewhat similar custom among the Chinese, the Dyaks of Borneo, the negroes, the aboriginal tribes of North and South America, etc.

**Covenant,** in law, an agreement confirming or annulling some specified act. In theology, the promises of God as revealed in the Scriptures, conditional on obedience, repentance, faith, etc.

**Covenant,** in history, the name given to a bond or oath drawn up by the Scottish reformers, and signed in 1557 ,and to the similar document or Confession of Faith drawn up in 1581, in which the distinctive doctrines of Popery were abjured. The latter was subscribed by James VI. and his council, and all his subjects were required to attach their subscription to it. It was again subscribed in 1590 and 1596. The subscription was renewed in 1638, and the subscribers engaged by oath to maintain religion in the same state as it was in 1580, and to reject all innovations introduced since that time. The "Solemn League and Covenant" was a solemn contract entered into between the General Assembly of the Church of Scotland and commissioners from the English parliament in 1643, having for its object a uniformity of doctrine, worship, and discipline throughout Scotland, England, and Ireland, according to the Word of God and the example of the best reformed churches. In 1662 it was abjured by act of parliament, both in England and Scotland.

**Covenanters,** in Scottish history, the name given to a party which struggled for religious liberty from 1637 on to the revolution; but more especially applied to the insurgents who took up arms in defense of the Presbyterian form of Church government. The Presbyterian ministers who refused to acknowledge the bishops were ejected from the parishes and gathered around them crowds of their people on the hillsides to attend their ministrations. The first outbreaks took place in the hill country in the borders of Ayr and Lanark shires. The murder of Archbishop Sharp on Magus Moor, and a skirmish near there alarmed the government, who sent troops to put down the insurgents, who increased in number rapidly. The two armies met at Bothwell Bridge, where the Covenanters were totally defeated June 22, 1679.

In consequence of the rebellious protest called the SANDQUHAR DECLARATION, put forth in 1680 by Cameron, Cargill, and others, as representing the more irreconcilable of the Covenanters, and a subsequent proclamation in 1684, the government proceeded to more severe measures. An oath was now required of all who would free themselves from suspicion of complicity with the Covenanters; and the dragoons who were sent out to hunt down the rebels were empowered to kill anyone who refused to take the oath. After the accession of William some of the extreme Covenanters refused to acknowledge him owing to his acceptance of Episcopacy in England, and formed the earliest dissenting sect in Scotland.

**Covent Garden,** corrupted from CONVENT GARDEN, from having been originally the garden of the Abbot of Westminster, is a spacious square in London, celebrated for a great market held within it of fruit, vegetables, and flowers.

**Coventry,** England, a city in Warwick, 85 miles N. W. of London. The chief buildings are the fine churches of the "three tall spires" commemorated by Tennyson. Coventry was formerly surrounded with lofty walls and had 12 gates. It was the see of a bishop early conjoined with Litchfield. Parliaments were convened by the earlier monarchs of England. Pageants and processions were celebrated in old times, and a remnant of these still exists in the processional show in honor of Lady Godiva. Population (1921) 128,205.

**Coverdale, Miles,** the earliest translator of the Bible into English; was born in Yorkshire, England, in 1487. He was educated at Cambridge, and was ordained priest in 1514. He was led some years afterwards to embrace the reformed doctrines, and, having gone abroad, assisted Tindall in his translation of the Bible. In 1536 his own translation of the Scriptures appeared. In 1551 he was appointed Bishop of Exeter, but was ejected on the accession of Mary, and thrown into prison. After two years' confinement he was liberated, and proceeded first to Denmark, and subsequently to Geneva, where he was employed in preparing the Geneva translation of the Scriptures. On the accession of Elizabeth he returned to England, and held for a short time the rectory at St. Magnus, London Bridge. He died in London, in 1568.

**Covington,** a city, capital of Kenton County, Ky. founded in 1812 on the Ohio River, opposite Cincinnati. It is an industrial and manufacturing centre with large export interests. Pop. (1920) 57,121.

**Cowan, Frank,** an American lawyer and writer; born in Greensburg, Pa., Dec. 11, 1844. Making the tour of the world in 1880–1881 and 1884–1885, he entered Korea before commercial treaties had opened that country to foreign intercourse. D. 1905.

**Cowbane,** or **Water-hemlock,** a perennial, umbelliferous, aquatic plant, producing an erect, hollow, much-branched, striated stem three or four feet high, furnished with dissected leaves. It is highly poisonous.

**Cow-berry,** the red whortleberry, a shrub of highlands in North America, Europe, and Asia, has evergreen box-like leaves, and produces a red acid berry used for jellies.

**Cowboys,** in the American Revolution. a band of American Tories who infested the neutral ground of Westchester county, N. Y. robbed the Whigs and Loyalists, and made a specialty of stealing cattle. The word cowboys is now used to designate the men who have charge of the cattle on the vast ranges in the W. and S. W. of the United States. Many of them were enlisted in two regiments of cavalry for the war with Spain, under the popular name of "Rough Riders."

**Cowen, Sir Frederic Hymen,** an English composer and conductor; born in Kingston, Jamaica, of English parents, Jan. 29, 1852; was educated in London under Sir Julius Benedict and Sir John Goss and at the Conservatories in Leipsic and Berlin; began conducting in 1880 and his musical publications in 1870, with the cantata of "Rose Maiden;" subsequently was author of over 250 songs, duets, piano pieces, etc.

**Cowes,** a British seaport on the N. coast of the Isle of Wight. It is built on both sides of the river Medina, dividing it into two towns, East and West Cowes. The town is the headquarters of the Royal Yacht Club, and a fashionable resort. Pop. (1921) 14,664.

**Cow Pea,** called also cow-grass, a trefoil or clover.

**Cowper, William,** an English poet; born in Berkhampstead, Nov. 15, 1731; was the great-nephew of Lord-Chancellor Cowper. In addition to translating Homer, he wrote "The Task," the best of all his poems, "Tirocinium", and a host of smaller works. Although somewhat of a hypochondriac, and subject to moods of depression and melancholy, his poetry is healthful, virile, unaffected, and tinged by strong natural piety. He died April 25, 1800.

**Cow-pox,** a contagious cattle disease characterized by a pustular eruption, chiefly on the udder, accompanied by febrile symptoms. Jenner, the originator of vaccination, thought that it might be practicable to propagate cow-pox as a preservative against small-pox, by inoculating some human being from the cow, and from that person transferring the matter to another and another of the community till protection was obtained for all. See JENNER; SMALL-POX; VACCINATION.

**Cowry,** the Cyprœa moneta, a gastropod mollusk, which is chiefly a native of the Pacific and Eastern seas. Tons of the shells are shipped yearly to Great Britain, whence they are again taken as money to be used in commercial transactions with the tribes of Western Africa. There is another species used locally among the Eastern islands for the same purpose.

**Cow Tree,** one of various trees yielding a highly nutritious juice, chemically akin to cow's milk. The best known are the South American, Brosimum Galactodendron, and the Tabernæmontana utilis.

**Cox, Jacob Dobson,** an American soldier; born in Montreal, Oct. 27, 1828; graduated at Oberlin College in 1851, and became a lawyer. Upon the outbreak of the Civil War he was made Brigadier-General of Ohio Volunteers. In 1862 he became Major-General of United States Volunteers, and in 1864 commanded a division at Nashville. He was elected governor of Ohio in 1865, and in 1869 became Secretary of the Interior in President Grant's cabinet. He was the author of several valuable contributions to the literature of the Civil War. He died Aug. 4, 1900.

**Cox, John,** a Canadian educator; born in London, England, in 1851. He entered the University Extension movement, and in 1889 went to Canada, becoming Professor of Physics in McGill University, a post he has since retained.

**Cox, Kenyon,** an American artist, born in Warren, O., Oct. 27, 1856. He studied in Paris under Duran and Gérome, settling in New York in 1883. Examples of his mural decorations are in the Library of Congress, at Bowdoin College, and elsewhere. D., 1919.

**Cox, Palmer,** an American artist and writer for young people; born in Granby, Quebec, April 28, 1840. Since 1875 his home has been in New York. He is best known as the originator of the "Brownies," a series of funny pictures for children. D., 1924.

**Cox, Samuel Sullivan,** an American statesman and author; born in Zanesville, O., Sept. 30, 1824. He served in Congress, and became minister to Turkey. He died in New York, Sept. 10, 1889. A statue was erected to his memory in New York city by the letter-carriers, whose interests he had advocated in Congress.

**Coxe, Arthur Cleveland,** an American writer, and second Bishop of the Protestant Episcopal Church in the Diocese of Western New York; born in Mendham, N. J., May 10, 1818; died in Clifton Springs, N. Y., July 20, 1896.

**Coxeyites,** the followers of Jacob S. Coxey, of Massillon, O., who, during the financial depression existing in the United States in November, 1893, announced that he intended to lead an army of 100,000 of the unemployed people to Washington, to petition Congress for the issuance of $500,000,000 in non-interest bearing bonds, to be used for the improvement of roads. Coxey left Massillon on March 25, 1894, at the head of 122 people, and reached Washington May 1. In the attempt to make a speech from the Capitol steps, he was accused of stepping on the grass, and with Carl Browne, was imprisoned for 20 days.

**Coyote,** the American wild dog or prairie-wolf. The coyote is virtually a wild dog and breeds with the domestic dog. In general appearance the coyote resembles the wolf.

**Cozumel,** an island in the Caribbean Sea, off the coast of Yucatan.

**Cozzens, Frederick Swartwout,** an American humorist; born in New York city, March 5, 1818; was a merchant, to whom literature was a recreation. His best work is "The Sparrow grass Papers." He died in 1869.

**Crab,** a popular name for all the ten-footed, short-tailed crustaceans, distinguished from the lobster from the shortness of their tail. They easily lose their claws, which as readily grow again. The first pair of limbs are furnished with strong claws, and are used for grasping food and other objects. They generally live on decaying matter, but some varieties live on vegetable matter. Most crabs inhabit water, but some varieties occupy the land, only going to water to spawn. Several species are highly esteemed by epicureans as food.

**Crab Apple,** a small, wild, very sour species of apple, from which a fine jelly is made.

**Crabb, George,** an English lawyer and philologist; born in Palgrave, England, Dec. 8, 1778; died in Hammersmith, England, Dec. 4, 1854. A "Dictionary of English Synonymes," and a "Digest and Index of all the Statutes at Large" are his chief works.

**Crabbe, George,** an English poet; born in Aldborough, Suffolk, in 1754; died 1832, at Trowbridge, Wilts, where he had been rector since 1814. His poems, chiefly of a domestic character, marked by simplicity and pathos, inclue "Inebriety"; "The Candidate"; "The Library"; "The Newspaper"; "The Village"; "The Parish Register"; "The Borough"; "Tales in Verse"; and "Tales of the Hall."

**Crab Spider,** or **Matoutou,** a spider which may at once be known by the shape of its mandibles and the terrible claws which proceed from them. The great crab spider preys on young birds and other small vertebrates, instead of limiting itself to the insects, and similar beings, which constitute the food of the generality of the spider race. The falces or talons of this spider are of enormous size, and when removed from the creature and set in gold, they are used as toothpicks, being thought to possess some occult virtue to cure toothache.

**Crackers,** or **Corn-Crackers,** a contemptuous term in the southern United States for the poor, uneducated whites, whose chief food is coarsely ground "cracked" corn.

**Cracow,** the old capital of Poland, in 1815–1846 capital of a republic of the same name now forming part of Austrian Galicia; is on the left bank of the Vistula, where it becomes navigable, and consists of Cracow proper, or the old city, and several suburbs. It is the see of a bishop, is well built and regularly fortified. The cathedral, a fine old Gothic edifice, contains monuments of many Polish kings, of Kosciusko, etc. The university was founded in 1364, but gradually fell into decay, and was reorganized in 1817. It has a library of 300,000 volumes. On a hill near the town stands the monument of Kosciusko, 120 feet high. Pop. (1922) 181,700.

**Cradle,** or "rocker," a mechanical contrivance used in placer mining, consisting of a box on rockers and moved by hand, used for washing out the gold-bearing soil.

**Cradle of Liberty,** a name by which Faneuil Hall, in Boston, is known. During the Revolution it was the favorite meeting place of the Americans. The name is also sometimes applied to the city of Boston.

**Crafts, Wilbur Fisk,** an American clergyman; born in Freyburg, Me., Jan. 12, 1850; preached eight years as a Methodist Episcopal minister; in 1880 joined the Congregational church. Later he engaged in literary work. He is secretary of the American Sabbath Union, and prominent in reform work; author of "Successful Men," etc. Died, 1923.

**Craik, Dinah Maria Mulock,** an English author; born in Stoke-upon-Trent in 1826. In 1865 she married George Lillie Craik, a partner in the publishing house of Macmillan and Company, and spent a period of quiet happiness and successful literary industry at her home in Kent, where she died Oct. 12, 1887.

**Craik, George Little,** a Scotch writer and publisher; born 1799; died 1866.

**Craik, Georgiana Marion,** an English novelist; born in London in April, 1831.

**Cramp,** an irregular and painful spasmodic contraction of the muscles of the whole or different parts of the body. Though it may involve the greater number of the muscles at once, the parts most generally affected are those of the feet, legs, thighs, abdomen, and arms. Swimmer's cramp is a common and sometimes fatal form. Vigorous friction is the chief remedy.

**Cramp, Charles Henry,** an American shipbuilder; born in Philadelphia, May 9, 1828. He was graduated at the Central High School and entered the shipyards of his father, William Cramp. He soon established the prestige of the firm of William Cramp & Sons, which he incorporated and of which he became president. Their plant in Philadelphia became the most extensive in the United States, executing contracts for the United States, Russia, Japan, etc., and exercising a great influence upon naval development. He died June 6, 1913.

**Cranach,** or **Kranach, Lucas,** a German painter; born in 1472. His works, chiefly portraits and historical subjects, are numerous and much prized. He died in 1553. His son, Lucas, also gained great distinction as a painter.

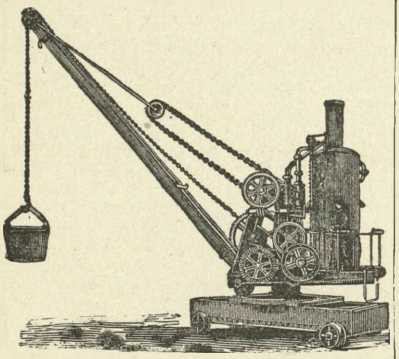
**Cranberry,** a plant, having also the book-name of the marsh whortleberry. It is found in bogs. The berries are used for preserves and pies.

**Cranbrook, Gathorne Gathorne-Hardy, Earl,** an English statesman; born in Bradford, Oct. 1, 1814. He was Secretary of State for India (1878-1880); Pres. of Council (1885-1892). He died Oct. 30, 1906.

**Cranch, William,** an American jurist; born in Weymouth, Mass., July 17, 1769. He was appointed an Associate Judge of the United States Circuit Court for the District of Columbia in 1801; and Chief-Justice of that court in 1805. He held this office till his death, and during a period of over half a century had only two decisions overruled by the Supreme Court. His "Reports" are valuable works. He died Sept. 1, 1855.

**Crane,** a machine for lifting weights, worked either by hand, or by steam, or by hydraulic power. The most common hand form consisting of an upright revolving post and a pro-

jecting arm, the jib with a fixed pulley at its extremity. The lifting chain or rope is secured to the weight, passes over the fixed pulley, and then round a drum or cylinder; suitable toothed-wheel gearing worked by a handle revolves this drum, and thus winds up or unwinds the rope or chain, and so raises or lowers the weight.



STEAM CRANE.

**Crane,** a genus of birds belonging to the order Grallæ, or Grallatores. These birds are generally of considerable size, and remarkable for their long necks and stilt-like legs, which eminently fit them for living in marshes and situations subject to inundations, where they usually seek their food. This is rincipally of vegetable matter, consisting of the seeds of various plants or grains plundered from grounds recently plowed and sown. They als, devour insects, worms, frogs, lizards, reptiles, small fish, and the spawn of various aquatic animals. They build their nests among bushes or on tussocks in the marshes, constructing them of rushes, reeds, etc., surm unted by some soft material, so high that they may cover their eggs in a standing position. The cranes annually migrate to distant regions, and perform voyages astonishing for their great length and hazardous character.

Among North American species are the whooping crane and the brown or sand-hill crane. The first-named derive their trivial appellation from their loud, clear, piercing cry, which may be heard at the distance of two miles. They are very shy and vigilant, and consequently shot with difficulty. Their general color is pure white. The brown or sand-hill crane is of an ash color, generally, with shades or clouds of pale brown and sky-blue; brown prevails upon the shoulders and back. It is a very stately bird, standing when erect fully 5 feet high, and measuring 8 or 9 across the wings. The tail is quite short, but the feathers pendent on each side of the rump are very long, of a delicate silky softness, and sharp-pointed. The crown of the head is bare of feathers, and of a reddish rose color, but thinly barbed with a short, stiff, black hair.

**Crane, Stephen,** an American story writer; born in Newark, N. J., Nov. 1, 1870. He died in Badenweiler, Germany, June 5, 1900. His "Red Badge of Courage" excited a wide-spread interest in its author and seemed to presage a career of more than ordinary brilliancy. He broke off his college career to become a journalist. During the Spanish-American War, he was a reporter in Cuba for the New York "Journal."

**Crane, Thomas Frederick,** an American scholar and author; born in New York July 12, 1844. He became Professor of Romance Languages at Cornell University in 1881.

**Crane, Walter,** an English painter; born in Liverpool Aug. 15, 1845; the son of an artist, Thomas Crane (1808–1859). He himself was trained as an artist, and his earlier as well as much of his later work consists of book illustrations. From 1888 a member of the Royal Society of Painters in Water-colors, he was in 1893 appointed art director to the city of Manchester. He espoused the Socialist movement. He died March 15, 1915.

**Crane, William H.,** an American actor; born in Leicester, Mass., in 1845. He made his first appearance on the stage when 18 years old and soon won recognition as a comedian. He played "David Harum" for three years and won much popularity in it.

**Crane-fly,** the typical species is popularly known as daddy-long-legs.

**Craney Island,** an island in Norfolk Co., Va., near the mouth of the Elizabeth river W. of the entrance. Here is situated a lighthouse 50 feet in height, standing on an iron pier. There are also government powder magazines on the island.

**Craniology,** a scientific study of the cranium.

**Crank,** in machinery, a lever or arm on a shaft, driven by hand (e. g., a winch-handle), or by a connecting rod, its object being to convert reciprocating motion into rotary motion.

**Cranmer, Thomas,** Archbishop of Canterbury; born in Aslacton, Nottinghamshire, July 2, 1489. The opinion which he gave on the question of Henry VIII.'s divorce from his first wife, Catharine of Arragon, recommended him to that monarch, who employed him to vindicate the measure, and sent him, in 1530, with other envoys, to maintain his view before the Pope. He took with him the opinions which had been obtained from the foreign universities in favor of the same view. His mission was fruitless. On his way home, he visited Germany, and at Nurnberg married a niece of Osiander. After his return he was raised by papal bull to the archbishopric of Canterbury, in which office he zealously promoted the cause of the Reformation. Through his means the Bible was translated and read in churches; and he greatly aided in suppressing the monastic institutions. A few weeks after his appointment he pronounced, in a court held at Dunstable, the sentence of divorce of Catharine, and confirmed the king's marriage with Anne Boleyn. In 1536, when Anne Boleyn was destined to lose her reputation and her life, he stooped to promote the sentence of divorce. This and other compliances with the monarch's will insured him the gratitude of Henry, who upheld him in all his contests with Bishop Gardiner and others who accused him of heresy and faction. By Henry's will he was appointed one of the council of regency to Edward VI. On the accession of Mary, he was committed to the Tower, along with Latimer and Ridley. On March 21, 1556, he suffered martyrdom, as his fellow-reformers had done, opposite Baliol College.

**Crannog,** a fortified lake dwelling, of which many are to be found in Ireland. They are supposed to have been formed about the 9th or 10th century.

**Cranston, Earl,** an American clergyman; born in Athens, O., June 27, 1840. He was graduated at Ohio University in 1861 and served on the Union side throughout the Civil War, rising to a captaincy. In 1867 he entered the Methodist ministry, and in 1896 he was made a bishop, his diocese including China and the Orient.

**Crape,** a gauzy fabric made of raw silk, and woven without crossing. Uncolored, or gaily dyed, it is a rich shawl-stuff. Colored black and crimped, it is a mourning goods.

**Crassus, Marcus Licinius,** a Roman triumvir, surnamed DIVES (the rich), on account of his vast riches; born about 115 B. C. He was exceedingly fond of wealth, and also exceedingly skillful and by no means scrupulous in the ways and means of accumulating it. As he was one of the most influential men in Rome, and very ambitious, his friendship was sought by Cæsar, who formed with him and Pompey the first triumvirate in 60 B. C. The power of the triumvirs secured the reëlection of Pompey and Crassus as consuls in 55 B. C., and according to the Trebonian law Syria and the two Spains were assigned to the consuls for five years, Gaul and Illyricum falling to Cæsar. Crassus obtained Syria as his province, and envious of the military glory that both Pompey and Cæsar had attained, now determined to rival them. Accordingly, without the sanction of the senate, and in violation of treaties, he proceeded to attack the Parthians, reckoning on an easy victory, and expecting to obtain enormous treasures. He was taken at a disadvantage on the open plains of Mesopotamia by Surenas, the general of the Parthian king Orodes, and perished with his son and a large portion of his troops, 53 B. C. His head was sent to Orodes, who caused melted gold to be poured into the mouth, in scorn of the greed of Crassus.

**Crater,** (a cup), the central cup-shaped cavity in the summit of a volcano through which the lava, stones, etc., are for the most part ejected.

**Crater Lake,** a small lake in the Cascade Mountains, in Oregon, remarkable for its wall of perpendicular rock, from 1,000 to 2,000 feet high.

**Craven, Alfred Wingate,** an American engineer; born in Washington, D. C., Oct. 20, 1810. His most important work was in New York, in connection with its sewerage, its supply of Croton water, and the improvement of Fourth Avenue. He was a founder, director many years, and president in 1869–1871 of the American Society of Civil Engineers. Died in Chiswick, England, March 29, 1879.

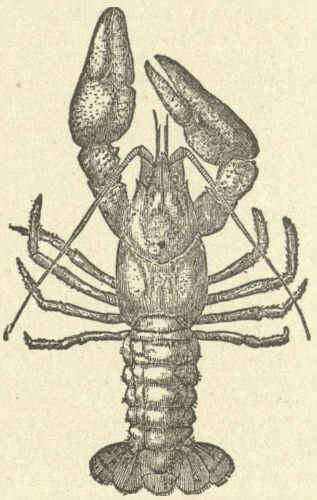
**Craven, Thomas Tingey,** an American naval officer; born in Washington, D. C., Dec. 30, 1808; joined the navy in 1822; was promoted captain in June, 1861. In 1862 he was placed in command of the "Niagara," and during the remainder of the war he served along the coasts of England and France. He was promoted rear-admiral in October, 1866; retired in December, 1869. He died in Boston, Mass., Aug. 23, 1887.

**Craven, Tunis Augustus Macdonough,** a brave American naval officer; born Portsmouth, N. H., in 1839. After an honorable career in various naval duties, he was in command of the monitor "Tecumseh," with Admiral Farragut's fleet, in Mobile Bay, August 5, 1864. When the monitor was struck by a torpedo and sinking, and there was opportunity only for Craven or the pilot to escape, Craven deliberately told the pilot to go first, and perished himself.

**Crawfish,** or **Crayfish,** a name of various crustaceous animals, the common crawfish being the river lobster. It lurks under stones or in holes in the banks. Its food consists of small mollusks or fishes, the larvæ of insects, and almost any sort of animal matter. Some crawfish by their burrowing habits injure mill-dams and the levees of the Mississippi.

**Crawford, Francis Marion,** an American novelist; born in Tuscany, Italy, Aug. 2, 1853; son of THOMAS CRAWFORD. He was educated at Concord, N. H.; Trinity College, Cambridge; Karlsruhe, and Heidelberg. At Rome he devoted himself to the study of Sanskrit, and during 1879–1880 was engaged in press work at Allahabad, where he was admitted to the Catholic Church. He was selected by the government committee to write the National Ode at the centennial of the American Constitution, Sept. 17, 1887. Died April 9, 1909.

**Crawford, Thomas,** an American sculptor; born in New York city, March 22, 1814. He performed important works for the National Government and State of Virginia. He died in London, Oct. 16, 1857.



CRAWFISH.

**Crawford, William Harris,** an American statesman; born in Amherst county, Va., Feb. 24, 1772. In 1783 he settled in Columbia county, Ga., and was elected to the United States Senate to fill a vacancy in 1807 (fighting two duels during the canvass); was reëlected for a full term in 1811; was chosen president of the Senate pro tem. in 1812; and, refusing the secretaryship of war, was appointed minister to France in 1813. Two years later he was appointed Secretary of War, and the next year became Secretary of the Treasury, and held the latter office till March, 1825. He was urged as a candidate for the Presidency several times, received the nomi-

nation in 1824, and in the election had 41 electoral votes. No choice for President having been reached, the election was decided in the House of Representatives, but meanwhile Crawford had been stricken with paralysis, which precluded his effectual candidacy. He died, Sept. 15, 1834.

**Crayon,** a colored pencil consisting of a cylinder of fine pipe-clay colored with a pigment.

**Cream,** the oiliest part of milk, which specifically is lighter than the other constituents, and therefore rises to the surface.

**Creameries, Coöperative,** factories where butter is made, the cream or milk being supplied by neighboring farmers, who divide the profits according to the quantity or richness of the milk or cream furnished. The idea originated in New York about 1864. The business done by these creameries in the United States is upwards of $30,000,000 annually. The product is uniform and much superior to the usual farm butter. In Vermont there is one coöperative creamery that uses the milk of 3,000 cows, and turns out 10 tons of butter daily.

**Cream of Tartar,** a salt that exists in grapes, tamarinds and other fruits; the dregs of wine also contain a considerable quantity of it. It is used in medicine, also in calico printing and in dyeing. Cream of tartar is adulterated with sawdust, gypsum clay, chalk, flour, etc.

**Creasote,** or **Creosote,** an impure creasol, mixed with phenol. Wood creasote has powerful antiseptic power. Wood smoke contains this substance, hence its power of preserving meat. Creasotum is obtained by distilling wood-tar. It is a colorless liquid, with a strong empyreumatic odor.

**Creasy, Sir Edward Shepherd,** an English historian, born 1812; died 1878. In 1860 he was made Chief-Justice of Ceylon and knighted. His chief work is "Fifteen Decisive Battles of the World".

**Creatine,** is obtained from the muscular flesh of mammalia, birds, reptiles, and fishes. It has been found in the blood and urine and in the brains of pigeons and dogs.

**Creche,** a public nursery where, for a small payment, the children of women who have to go out to work are fed, nursed, and taken care of during the work hours of the day.

**Crécy-en-Ponthieu,** or **Cressy,** a village in the French Department of Somme, on the Maye, 12 miles N. of Abbeville. Crécy is celebrated on account of the brilliant victory obtained here, Aug. 26, 1346, by Edward III., with 40,000 English soldiers, over a French army amounting, according to Froissart, to 100,000 men under the command of the Count of Alencon. In this great battle perished the flower of the French chivalry, as well as the blind King of Bohemia, who was fighting on the side of France. The battle of Crécy was one of the first in which cannon were used by English troops.

**Credit,** in economics, is the postponement agreed on by the parties of the payment of a debt to a future day. The term is also applied to the general credit of individuals in a nation. So we speak of the credit of a bank when general confidence is placed in its ability to redeem its notes, and the credit of a mercantile house rests on its supposed ability and probity, which induce men to trust to its engagements.

**Credit, Letter of,** an order given by bankers or others at one place to enable a person to receive money from their agents at another place.

**Crédit Foncier,** a mode of raising money on land in France, the peculiarity of which is that the advance must not exceed one-half of the value of the property pledged or hypothecated, and that the repayment of the loan is by an annuity terminable at a certain date.

**Crédit Mobilier,** the name given to a gigantic scheme promulgated in France in 1852, and sanctioned by the existing government, the objects of which are: To take in hand and originate trading enterprises of all kinds, on the principle of limited liability. To supersede or buy up trading companies; and to substitute script and shares of its own, for the shares and bonds of the company. The Credit Mobilier of America was a corporation with a Pennsylvania charter, granted in 1859 nominally to

conduct a banking business. The charter passed into the hands of railroad financiers in 1864, who used it to finance the Union Pacific Railroad and to shield themselves from loss in case the railroad proved a failure. Congress investigated the enterprise in 1872–1873, and two members of the House of Representatives, Oakes Ames, of Massachusetts, and James Brooks, of New York, were censured by resolution of the House.

**Creed,** a summary of belief, from the Latin credo (I believe), with which the Apostles' Creed begins.

**Creedmoor,** a former rifle range belonging to the State of New York, at Queen's station on the Long Island railway, some miles E. of the city of New York. The range extended over 85 acres, had 30 targets, and could be used at any distance from 50 to 1,200 yards.

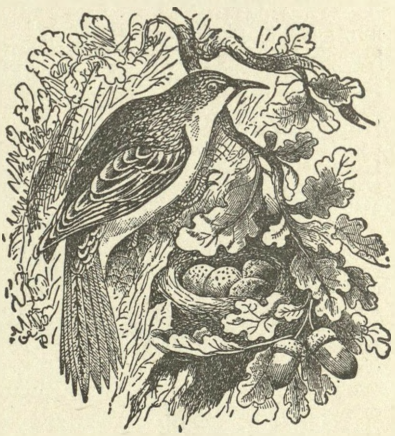
**Creeks,** a strong Indian tribe occupying a reservation of 4,750 square miles, in the N. E. portion of Oklahoma. The reservation is rich in natural resources, and the Creeks are in an advanced state of material prosperity. Their chief and Legislature are chosen by popular vote. There are good railroads and excellent educational institutions. The Creeks numbered (1899) 14,771, but the total population of the reservation (1900) was over 18,000. The capital is Okmulgee. The tribe's trust funds aggregate $2,000,000. They are classed as one of the Five Civilized Tribes. Most of them profess evangelical Christianity.

**Creepers,** a family of birds which strongly resemble the woodpeckers in their habit of creeping on the stems of trees with the aid of the strong quills which project from the tail-feathers, and of securing their insect food by an exsertile tongue.

**Creepers,** a popular name for those plants which, having weak stems, seek support from other objects, chiefly from other plants, in order to ascend from the ground.

**Cremation,** the act of cremating or disposing of a corpse by burning instead of burying it. Cremation was practised among the Greeks and Romans. The first crematory in the United States was established in Washington, Pa., in 1876. It was first used for the incineration of the body of the Baron de Palm in December of that year. In 20 years the number of cremations in the United States, rose from 25 to 2,500 yearly.

**Crémieux, Isaac Adolphe,** a French jurist and politician; born in Nîmes, April 30, 1796; became an advocate in Paris, entered the Chamber, and in 1848 was a member of the provisional government. Imprisoned at the coup d'état, he subsequently confined himself to professional work till 1870, when he was a member of the government of national defense. He died Feb. 10, 1880. He was the founder of the Alliance Israélite Universelle.



COMMON CREEPER.

**Cremona,** an episcopal city of Northern Italy, on the N. bank of the Po, 60 miles S. E. of Milan. In the 16th, 17th, and 18th centuries it was greatly celebrated for its manufacture of violins, the most famous makers being the Amatis, the Guarneris, and Stradivari. Pop. (Est.) 44,000. Cremona is the capital of a province of the same name; area, 685 square miles. Pop. (Est.) 360,000.

**Creole,** a person, in Latin America and the West India Islands, of European progenitors; as, a Spanish creole. The term is applied also,

but wrongly, to any person born within tropical latitudes, of whatsoever color, English writers frequently being offenders in so designating mestizos and mulattos.

**Creole State,** Louisiana, where the direct descendants of the original French and Spanish colonists form an important element in the social system.

**Crerar, John,** an American philanthropist; born in New York City, about 1828. He entered mercantile life and accumulated a fortune, removing to Chicago in 1862, and adding to his wealth by railway financiering. He readily bestowed large sums upon charitable undertakings, and in his will left $2,500,000 to found the John Crerar Public Library, from which sensational novels and skeptical works should be excluded. Died in Chicago, Oct. 19, 1889.

**Crescent,** anything shaped like the moon in her state of increase; the figure of a new moon borne on the national standard of Turkey; and hence figuratively used for the Turkish power or Mohammedanism itself.

**Crescent City,** a name by which New Orleans is widely known. The older portion is built around a semicircular bend of the Mississippi, but in its recent growth the city has spread around another bend further up stream, and is now nearly S-shaped.

**Crespo, Antonio Candido Goncalves,** a Portuguese poet; born in Rio Janeiro, March 11, 1846. He graduated in jurisprudence at the Coimbra University, but devoted himself almost exclusively to the Muses at Lisbon. He published only two small volumes. In collaboration with his wife, Maria Amalia Vaz de Carvalho, herself a notable writer, he was author of "Stories for our Children." He died in Lisbon, June 11, 1883.

**Crespo, Joaquin,** a Venezuelan military officer; born in Venezuela about 1840. He received a liberal education, became governor of the State of Guarico in 1880, and was President of Venezuela in 1884–1886. In 1892 he headed a revolution, making himself dictator. Two years later he was again elected president, serving until 1898. He was killed in battle with insurgents April 16, 1898.

**Cress,** the name of several species of plants. Water-cress is used as a salad. It grows on the brinks of rivulets and in moist grounds.

**Crest,** a portion of the armorial bearings of a nobleman or gentleman entitled to bear coat-armor that is commonly used without the shield, being painted on the doors of carriages, and engraved on plate and signet rings.

**Creswick, Thomas,** an English landscape-painter; born in Sheffield, Feb. 5, 1811; died Dec. 28, 1869.

**Cretaceous System,** in geology the highest division of the secondary strata, occurring in North America in the Western States and Territories, and containing huge fossil bones.

**Crete.** See CANDIA.

**Cretinism,** a kind of idiocy prevalent in various Alpine and other valleys. In most cases, the afflicted person suffers from goiter, an ugly swelling on the neck. The existence of such a protuberance does not, however, necessarily imply idiocy. See GOITER.

**Creusot, Le,** a town in the French department of Saone-et-Loire, 236 miles S. S. E. of Paris. Situated in the midst of a district rich in coal and iron, it owes its importance to the establishment here in 1837 of the great ironworks of Schneider and Co.

**Crew, Henry,** a physicist, born at Richmond, O., 1859. He graduated from Princeton,and held appointments at the Johns Hopkins University Hartford College, Lick Observatory, and Northwestern University.

**Crichton, James,** surnamed THE ADMIRABLE; born in Scotland, in 1560. He was educated at the university of St. Andrew's. He went to France, where he continued his studies, and took part in the war carried on by Henry III. against the Huguenots. About 1580 he went to Italy, visiting Genoa, Rome, and Venice, where he was warmly received by the great printer Aldus. He was introduced to the Doge and Senate, and created astonishment at Venice and Padua, by his brilliant off-hand discourses and his challenge to disputation in any of

several languages, and on either side of any controversy. He next went to Mantua, and was appointed tutor to the son of a duke. Attacked in the streets one night by a party of men armed and masked, he overcame them by his superior skill, and recognized his pupil, to whom he at once presented his sword. The young prince immediately ran him through with it, July 3, 1582.

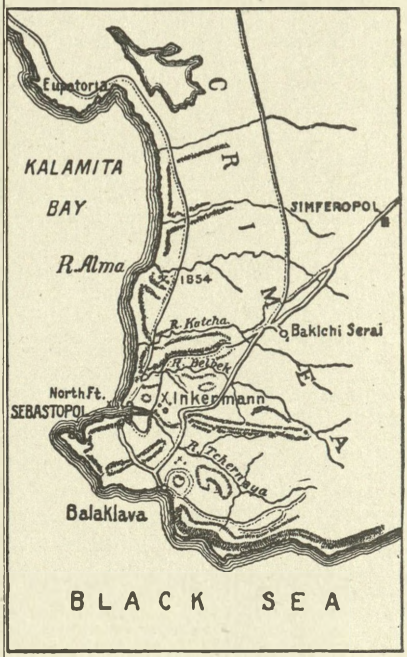
**Cricket,** the name given to certain insects. The best known species are the following: The common cricket or house cricket found around the kitchen hearth. The field cricket is found in burrows among stones and sand. The mole cricket has curious mole-like hands or hand-like organs, admirably adapted for digging.

**Cricket,** a game, played in the United States, Great Britain, Australia, and India, the players being arranged in two contesting parties of 11 each — England's national game.

**Crime,** an act which violates a law or rule, divine or human, and subjects to judgment and condemnation; a breach of the laws prescribed by God or man. A capital crime is any crime which incurs the penalty of death.

**Crimea, The,** a peninsula of Southern Russia, government of Taurida, to the mainland of which it is attached by the Isthmus of Perekop; area, 10,000 square miles. Pop. estimated at 450,000. The chief town and port is Sebastopol. The country was anciently associated with the Cimmerians, and in later times with various Greek settlements and minor kingdoms. After being for some time a dependency on Rome, it was overrun by successive bodies of barbarians, and in 1237 fell into the hands of the Mongols under Genghis Khan. In 1783 the Russians took possession of the country; and with the view of overawing the Turks the great naval arsenal of Sebastopol, occupying the most commanding position in the Black Sea, was begun by Catharine II. in 1786. Its military resources were steadily developed up to the time of the Anglo-French campaign of 1854, when it fell into the hands of the allies. It has again become a powerful stronghold.

**Crimean War,** the struggle between England, France, Sardinia and Turkey, against Russia to prevent the preponderance of the latter in the E. of Europe, which occurred in 1854 to 1856. The war was attended by hard




SCENE OF THE CRIMEAN WAR.

fought battles and much disease and suffering in the camps. Russia held out stubbornly, but was compelled to accept the terms of the allies, and give up her projects against Turkey. A treaty was accordingly concluded at Paris on April 27, 1856, by which the independence of the Ottoman Empire was guaranteed.

**Criminal Law.** The bodies of laws, statutory and common, relating to crime and its penalties.

**Criminology,** a term denoting a new science, the branch of anthropology which deals with crime and criminals.

**Crinoidea,** an order of radiate animals, mostly fossils. The joints are extremely numerous, and the subdivision of the rays often very great. The disk is composed of calcareous pieces and fleshy integuments like the rays, as is also a stalk on which the whole is usually supported; the base, it is supposed, being fixed, and the disk and rays expanding like a flower.

**Crinoline,** originally, a horse-hair and cotton fabric for setting out a lady's skirts. The modern crinoline, by that specific name, came into fashion in the United States, France and England in 1855.

**Crinum,** a genus of plants. The species are very beautiful ornaments of gardens. One of them is the poison bulb of the East Indies, which is a powerful emetic, and is used to produce vomiting after poison has been taken.

**Cripple Creek,** a town in El Paso Co., Col., 50 miles W. of Colorado Springs. It is the trade center for the Cripple Creek mining district, in which the output of gold in the first half of 1902 was $13,936,392, and the total production of the camp to Jan. 1, 1902, was $116,549,287. The town has several cyanide mills, smelters and other mining industries. It was founded in 1890, and was nearly destroyed by fire in 1896. Pop. (1920) 2,325.

**Crishna,** in Hindu mythology an incarnate deity of perfect beauty. King Canza being informed that a child of the family of Devaci would overturn his throne, gave orders to destroy all the male infants that were born. When Crishna was born, his nurse attempted to poison him, but failed, and the mother and child fled, and were taken care of by a shepherd. As he grew up, his beauty was so divine that all the native princesses fell in love with him. Also spelt Krishna, and associated with Vishnu.

**Crisis,** in medicine, the turning point in a disease at which a decided change for the better or the worse takes place. The word crisis is also used for a decisive point in any important affair or business, for instance in politics and commerce.

**Crisp, Charles Frederick,** an American jurist; born in Sheffield, England, Jan. 24, 1845; removed to Americus, Ga.; served in the Confederate army; was admitted to the bar; he was Judge of the Supreme Court from 1877 to 1882. He resigned to accept a nomination for Congress, of which body he was chosen speaker. Died at Atlanta, Ga., Oct. 23, 1896.

**Crispi, Francesco,** an Italian statesman; born in Ribera, Sicily, Oct. 4, 1819. He studied law and settled at Naples. He took part in the conspiracies that led to the overthrow of the Two Sicilies, after which he fled to France; served as a major under Garibaldi, and in 1861 was returned by Palermo to the first Italian Parliament. Became President of the Chamber of Deputies; was made Minister of the Interior and later Prime Minister. He was a warm friend of Bismarck. He became unpopular and two attempts were made to assassinate him. He died Aug. 11, 1901.

**Crispin,** a Christian shoemaker, martyred under Diocletian; the patron saint of the shoemakers.

**Crittenden, George Bibb,** an American military officer; born in Russellville, Ky., March 20, 1812. Graduated at the United States Military Academy and served as an officer in the Mexican War. He joined the Confederacy at the outbreak of the Civil War. He died in Danville, Ky., Nov. 27, 1880.

**Crittenden, John Jordan,** an American legislator; born in Woodford Co., Ky., Sept. 10, 1787. Graduated at William and Mary College, he became a member of the State Legislature, and was elected to the United States Senate. He resigned but subsequently was reelected twice. In 1848 he became governor of Kentucky. Through his influence the State remained loyal to the Union in the Civil War. He died near Frankfort, Ky., July 26, 1863.

**Crittenden, Thomas Leonidas,** an American military officer; born in Russellville, Ky., May 15, 1819. He was educated for the law. He served as an officer in the Mexican and Civil Wars. He distinguished himself at Shiloh, Stone River, and Chickamauga. He was placed on the retired list in 1881. He died in Annandale, N. Y., Oct. 23, 1893.

**Crittenden, Thomas Theodore,** an American lawyer; born in Shelby Co., Ky., Jan. 2, 1832; graduated at Centre College, Danville, Ky., in 1855; served through the Civil War; practised law after the close of the war; filled an unexpired term as attorney-general of Missouri; was a member of Congress; governor of Missouri; United States consul-general at the City of Mexico, and later resumed the practice of law. Died May 29, 1909.

**Crittenden Compromise,** a policy advocated by John J. Crittenden, according to which the old boundary line between slave territory and free territory in the United States (36° 30′ N.) should be reëstablished, and fugitive slaves returned to their owners.

**Croatia,** a country which formed, along with Slavonia and the Military Frontiers, a province or administrative division in the S. W. of the Austrian dominions in the Hungarian portion of the monarchy, now a district of Jugo Slavia; total area, 16,421 square miles. The inhabitants are Croats and Serbs, with a mixture of Germans, Hungarians, Jews, and Gypsies. About three-fourths of the population are Catholics, the rest belong chiefly to the Greek Church. The chief towns are Agram, Warasdin, and Karlstadt. Pop. (Est. 1921) 2,700,000. In A. D. 640 the Croats settled in Croatia, and gave their name to the country.

**Crocker, Charles,** an American capitalist; born in Troy, N. Y., Sept. 16, 1822. He went to California in 1849, and in 1860 was elected to the State Legislature. With Leland Stanford, Mark Hopkins, and Collis P. Huntington, he projected and completed the Union Pacific Railway system, making a large fortune. He died in Monterey, Cal., Aug. 14, 1888.

**Crocker, Francis Bacon,** an American electrician; born in New York July 4, 1861; graduated at Columbia University in 1882; became vice-president of the Crocker-Wheeler Electric Company; was Professor of Electrical Engineering in Columbia University in 1893–1914.

**Crockett, David,** an American pioneer, hunter, politician, and humorist; born in Limestone, Tenn., Aug. 17, 1786. He was member of Congress from Tennessee; served in the Texan War; and was one of the eccentric characters of the Southwest, about whom numerous stories are still told — notably of the coon which voluntarily agreed to "come down." He was killed at Fort Alamo, San Antonio, Texas, March 16, 1836.

**Crockett, Samuel Rutherford,** a Scotch novelist; born in Little Duchrae, Galloway, in 1862. He was a tutor and university pupil-teacher at an early age; but a volume of verse, "Dulce Cor," and "The Stickit Minister," showed literature to be his vocation. He died April 20, 1914.

**Crocodile,** the name of lizard-like reptiles, species of which are found in the Old and New Worlds. The crocodile inhabiting the Nile and other rivers of Africa has been known for many ages. It is not surprising that the Egyptians should place among their gods animals so powerful and destructive, though a better reason is to be found in the defense which they afforded against the incursions of robbers, who were not fond of crossing rivers frequented by crocodiles. A regular priesthood and worship were consecrated to this ferocious deity, and in the temple of Memphis a sacred individual of the species was reared with great care. When he died the priests embalmed his body, and buried it in the royal sepulcher. Formerly this reptile was found near the mouth of the Nile, but is now seldom found further N. than the first cataract in Upper Egypt.

The American species are more commonly known as alligators, and are found in the Mississippi near its mouth and other of the southern States. True crocodiles (often called alligators) are found in the West Indies, Central and South America. The Jamaica species is often seen some distance out at sea.

These reptiles are truly formidable, from their great size and strength, and if they were not rendered unwieldy by the length of the body and tail might become as dreadful on land as in the water, where they can act to the greatest advantage. Where they abound it is extremely dangerous to venture into the rivers for the purpose of bathing, or to be carelessly exposed

in a small boat. On shore their shortness of limb, great length of body, and difficulty of turning or of advancing otherwise than directly forward, enable men and animals readily to escape pursuit. These animals are exclusively carnivorous, feeding on such animals as frequent the waters, and on fish or carcasses thrown into the streams they inhabit. They always prefer their food in a certain state of putrefaction, and are known to keep animals killed by themselves in the mud until this process has begun.

**Crocus,** a genus of flowering plants, some of which blossom in early spring, while others are in flower in autumn.

**Croes, John,** an American clergyman; born in Elizabethtown, N. J., July 1, 1762; served in the army throughout the Revolutionary War; ordained in the Protestant Episcopal Church, and conducted a classical school for a number of years; elected Bishop of Connecticut in June, 1815, and of New Jersey in August of the same year. He died in New Brunswick, N. Y., July 30, 1830.

**Crœsus,** the fifth and last King of Lydia. He succeeded his father Alyattes, 560 B. C. His riches were greater than those of any king before him, so that his wealth became proverbial. The legend says that he asked the philosopher Solon what he thought of his good fortune: "I pronounce no man fortunate until his death," was the reply. Subsequently Crœsus was made prisoner by Cyrus, King of Persia. When bound to the stake and about to be burned to death, he recalled the words of Solon, and thrice repeated his name. Cyrus demanded an explanation. Crœsus gave it, and Cyrus not only spared his life, but also took him into his favor and protection. At the death of Cyrus he recommended Crœsus to the favor of Cambyses, who ordered him to be put to death.

**Croffut, William Augustus,** an American prose writer and poet; born in Redding, Conn., Jan. 29, 1835. He was a journalist of wide experience, having been connected with various newspapers, and was long connected with the United States Geological Survey. He died July 31, 1915.

**Crofters,** petty farmers in Scotland renting a few acres of land, with sometimes the right of grazing their cattle in common on a piece of rough pasture.

**Croghan, George,** an American military officer; born near Louisville, Ky., Nov. 15, 1791; graduated at William and Mary College; greatly distinguished himself at the defense of Fort Meigs and Fort Stephenson in 1813, receiving a gold medal from Congress. He died in New Orleans Jan. 8, 1849.

**Croker, Richard,** an American politician; born in Black Rock, Ireland, Nov. 24, 1843; came to the United States in early life. He was Alderman of New York three times, and in 1889–1890 was City Chamberlain. He was for several years at the head of Tammany Hall; and was long the Democratic dictator of New York State and city, and conspicuous in the National affairs of his party. He has a residence at Wantage in England, having retired from activity in American politics.

**Croly, David Goodman,** an American journalist; born in New York city Nov. 3, 1829; was educated at the University of New York; was reporter and editor on various New York papers. He foretold the financial panic of 1873, naming the firm of Jay Cooke & Company as the first to fail. He died in New York city April 29, 1889.

**Croly, Jane (Cunningham),** widely known by her pen-name of "Jennie June," an American writer, wife of D. G. Croly; born in Market Harborough, England, Dec. 19, 1831; settled in New York city in 1841; for many years she was editor of "Demorest's Magazine," and other periodicals. She was one of the founders of "Sorosis" and its president for 14 years. She died in New York city, Dec. 23, 1901.

**Cromlech,** an erection consisting of two or more stones standing like pillars, with a large flat, or rather a slightly inclined one, placed upon the top, so as to make the whole present a rude resemblance to a table, found throughout the Celtic area. Formerly they were generally held to be old altars for sacrifices, but are now believed to be sepulchers. Similar erections are seen in various parts of North and South America, Europe,

Arabia and India, other races than the Celtic having adopted the same idea.

**Crompton, Samuel,** an English inventor; born near Bolton in 1753. He early displayed a turn for mechanics, and when only 21 years of age invented his machine for spinning cotton, which was called a mule. The mule shared in the odium excited among the Lancashire hand-weavers against machines, and for a time Crompton was obliged to conceal his invention. He afterwards brought it again into work; but was unable to prevent others from profiting by it at his expense. Various improvements were introduced from time to time. The sum of $25,000 voted to him by Parliament in 1812, was almost all the remuneration which he received. He died in 1827.

**Cromwell, Oliver,** Lord-Protector of the Commonwealth of England, Scotland, and Ireland; born in Huntingdon, England, April 25, 1599. His father was Robert Cromwell, a gentleman who represented the borough of Huntingdon in the Parliament of 1593. Robert Cromwell was a younger son of Sir Henry Cromwell, who was knighted by Queen Elizabeth; and Sir Henry again was a son of Sir Richard Williams, a nephew of Thomas Cromwell, Earl of Essex, whose name he took. Oliver's mother was a daughter of William Steward, of Ely, and could trace her descent back to Alexander, lord-steward of Scotland, the founder of the house of Stuart. Cromwell's religious earnestness, his courage in the field, and his ability as a general made him the leader in the great revolution which for a time overthrew monarchy in England and Scotland. As head of the State under the title of "Lord-Protector" he made the name of England respected and feared abroad. His life was the history of England from the date, at least, of his decisive victory over Charles I. at Naseby until his death. He was to some extent the creature of circumstances and probably thought at one time of restoring the king, instead of taking his life. He wisely concluded, however, that, the restoration of Charles would be his own destruction, and he then deliberately brought about the trial and execution of his sovereign. His character embraced dissimilation strangely combined with sincere fanaticism. As a general he was merciless, but tolerant in matters of conscience. He failed to found a dynasty because another like himself would have been needed to maintain it. By his complete subjection of Scotland he paved the way for the union of the two kingdoms, and he was the first to make Britain imperial by the naval victories of his admirals, and the promotion of commerce with the colonies. He died at Whitehall, Sept. 3, 1658.

**Cromwell, Richard,** third son of Oliver; born Oct. 4, 1626. By the death of his two elder brothers he became his father's heir. He was an amiable and popular but weak man, devoted to field sports and fond of pleasure. He lived for some time in comparative privacy, but when the Protector had been empowered to nominate his successor, Richard was brought to the front, and an effort was made to train him to the work of government, but in vain. Scarcely had he entered on his office, when the forces of anarchy, both parliamentary and military, broke loose, and he found himself utterably unable to restrain them. After the Restoration he lived for a time abroad under a feigned name; but he returned to England about 1680, and passed the remainder of his life at Cheshunt, where he died July 12, 1712, and was buried at Hursley, Hampshire.

**Cromwell, Thomas,** Earl of Essex, chief minister to Henry VIII.; born about 1485 at Putney, in Surrey, where his father carried on the occupations of blacksmith, clothfuller, brewer, and innkeeper. He rose to prominence through the favor of Cardinal Wolsey and after Wolsey's death became King Henry's chief adviser, was made lord high chamberlain, and Earl of Essex, and was enriched with the property of confiscated monasteries. He lost favor with the king, was tried for treason, and executed July 28, 1540.

**Cronje, Piet** (properly PIETRUS ARNOLDUS), a Boer soldier, born near Pretoria, 1835. He became prominent in the history of the South African Republic. Bred to farm life, he entered politics, refused office under British annexation, commanded a brigade in the

war of 1880–1881, became a member of the Transvaal executive government, and captured Sir John Willoughby and his force after the Jameson raid of 1896. During the war with England in 1899–1900, Cronje rose to the military leadership of the Boers, and held out heroically with an inferior force till forced to surrender to Lord Roberts. He was exiled to St. Helena in 1900, released at the end of the war, and settled in the United States. He died Feb. 4, 1911.

**Cronstadt,** a fortified seaport of Russia, about 20 miles W. of Petrograd, in the narrowest part of the gulf of Finland, opposite to the mouth of the Neva, on a long, narrow, rocky island, forming, both by its position and the strength of its fortifications, the bulwark of the capital, and being the most important naval station of the empire. It was founded by Peter the Great in 1710, and used to be the commercial port of St. Petersburg, but since the construction of a canal giving large vessels direct access to the capital it has lost this position. Pop. (1919) 69,320.

**Crook, George,** an American military officer; born near Dayton, O., Sept. 8, 1828. He was graduated at the United States Military Academy in 1852, and rose to the rank of Major-General. In the Civil War he greatly distinguished himself, and after the war achieved celebrity in campaigns against the Indians. From 1888 until his death, he commanded the Military Division of the Missouri. He died in Chicago, March 1, 1890.

**Crookes, Sir William,** an English physicist and chemist; born in London in 1832. He invented the radiometer and the otheoscope, and announced his discovery of the fourth or ultra-gaseous state of matter. He is recognized as an expert on sanitary matters, and psychic phenomena.

**Cropsey, Jasper Francis,** an American artist, born in Rossville, N. Y., Feb. 18, 1823. His paintings include "Autumn on the Hudson," "Anne Hathaway's Cottage," and "Richmond Hill — Midsummer." He died in Hastings-on-Hudson, N. Y., June 22, 1900.

**Croquet,** to the most scientific form of which the name ROQUE is given, is an open-air game played with balls, mallets, and arches. It is substantially a revival of the old game of Pall Mall, which gave its name to the well known London street.

**Crosby, Fanny** (MRS. FRANCES JANE VAN ALSTYNE), a blind American hymnologist; born at Southeast, N. Y., March 4, 1820. She was author of over 3,000 hymns, including "Pass me not, O Gentle Savior," and the song "There's Music in the Air." She died Feb. 12, 1914.

**Crosby, Howard,** an American clergyman and scholar; born in New York city Feb. 27, 1826; graduated at the University of the City of New York and later became professor of Greek there. In 1863 he was made pastor of the Fourth Avenue Presbyterian Church in New York city, and thereafter was frequently a delegate to the Presbyterian General Assembly and was once its Moderator. He was in 1873 a delegate to the first Presbyterian General Council, held in Edinburgh. Dr. Crosby was one of the founders and presidents of the Society for the Prevention of Crime. He died in New York, March 29, 1891.

**Crosby, John Schuyler,** an American military officer; born in Albany, N. Y., Sept. 19, 1839. He was educated in New York city, and entered the army at the outbreak of the Civil War, serving with distinction. Became consul at Florence in 1876, governor of Montana in 1882, and first assistant postmaster-general in 1884, resigning in 1886. Died 1914.

**Cross,** an instrument of punishment consisting of two pieces of timber placed across each other, in various forms. It was used from the earliest times, especially throughout the Roman Empire, where crucifixion was regarded as the most infamous of deaths. By the death of Christ, the cross, from being an object of horror, became the symbol of the Christian world, and, from respect for this symbol, Constantine abolished the punishment throughout the Roman Empire.

**Cross-bill,** a species of birds of the finch family, deriving their name from the construction of their bill, the mandibles being curved so as to cross each other. Found in the Northern States, Canada, Europe, and Japan.

**Crossbow,** a weapon formed of a bow crosswise upon a stock. It was used by the Normans at the battle of Hastings.

**Crossbuns,** a small cake specially prepared for Good Friday, and in many towns cried about the streets on the morning of that day as "hot cross buns." Good Friday buns were appropriately marked with the cross, and hence the name. The origin of the practice is obscure.

**Crotalidæ,** a family of serpents. There is a deep pit on each side of the nose lined with small plates. The crown of the head is scaly, the belly covered with shield-like plates. The poison fangs are very large; the other teeth are small. The rattlesnake of the United States is the most formidable of the family.

**Croton,** a river in New York which joins the Hudson 32 miles N. of New York city. It supplies the city with water through the Croton Aqueduct.

**Croton Aqueduct,** the aqueduct which carries the water supply of New York city from the Croton basin. The old aqueduct was constructed between 1837 and 1842; and is 38 miles long. New York needs demanding a greater supply, a new aqueduct was begun in 1883, known as "the new Croton Aqueduct," which is about 30 miles long, and delivers to the city 350,000,000 gallons a day. At Jerome Park the aqueduct makes a somewhat abrupt fall of about 100 feet, passing under the Harlem river some 300 feet below the level of the water, running under Manhattan Island, and finally rising at 135th street, where a gate-house is constructed from which the water is distributed by means of iron pipes, into the reservoir at Central Park and the city. It was opened in 1890. New York main water supply is now obtained from the new Catskill Mountain Water System. The watersheds are situated in the Catskill Mountains, about 100 miles distant.

**Croton Oil,** a powerful, irritant, drastic, purgative, often causing nausea and vomiting. In overdoses it is a dangerous poison.

**Crotophaga,** a genus of birds, found in South America. It is the ani or anno of the Latin races, the razor-billed blackbird of Jamaica, called also the savannah bird and the great blackbird. It feeds on small lizards, insects, and seeds. It lives in flocks, and when one individual is slain the rest gather again almost at the same spot. Several females are said to use the same nest.

**Croup,** a term used from an early period to describe a certain train of laryngeal symptoms, was first applied in 1765 to an acute inflammatory and non-contagious affection of the larynx, in which there is the formation of a false membrane or fibranous deposit on the mucous surface of the windpipe. Croup seems to be caused by a damp atmosphere of low temperature. It is most frequently met with between the years of two and ten, though all ages are liable to suffer from it. It is commoner in boys than girls.

**Crow,** the crow family. They are very omnivorous, and remarkable for their intelligence. The family, widely diffused over the world, includes the common crow, and the Raven, the Fish-Crow, the Rook, the Jay, and the Magpie. The common crow of North America is remarkable for its gregarious and predatory habits. They pair in March; the old repair their nests, the young frame new ones; but they are such thieves, that while the one is fetching materials, the other must keep watch to prevent the rising fabric from being plundered by their neighbors. As soon as the nest is finished and the eggs produced (five, bluish-green, with dark blotches), the male takes upon himself the care of providing for his mate, which he continues during the whole period of incubation. They frequent the same rookeries for years, but allow no intruders into their community. They feed chiefly on worms and the larvæ of insects; they also eat grain and seeds, whence they have sometimes been supposed injurious to the farmer; but they amply repay him for what they take by destroying the vermin in his fields.

**Crow-blackbird,** the name of certain American birds found in the Southern States, Mexico, and the West Indies, is 16 inches long, and of a glossy black plumage. The purple grackle, or common crow-blackbird, is similar to the preceding but smaller. They reach the Middle States of the

United States from the S. in flocks in the latter part of March, and build in April in the tall pines or cedars. On their first arrival they feed upon insects, but afterward commit great ravages upon the young corn. In November they fly S. again.

**Crowe, Catherine,** born in Kent, England, about 1800; died in 1876; author of the well-known book, dealing with the supernatural, "The Night Side of Nature."

**Crowe, Sir Joseph Archer,** an English historian of art and miscellaneous writer; born in London, Oct. 20, 1825. His celebrity rests mainly on the "History of Painting in Italy." He died in Bavaria, Sept. 7, 1896.

**Crowfoot,** a troublesome weed found in gardens and pastures. Many varieties, such as the spearwort, abound in moist places, bearing white flowers and spreading over ditches and ponds. The weed is acrid and when eaten by cattle imparts a strong flavor to dairy products.

**Crown,** a wreath or garland for the head, given as the reward of victory or of some noble deed.

The word is also applied to the ornament of the head worn as a badge of sovereignty by emperors, kings, and princes. That worn by the Pope is more commonly called a tiara.

**Crowninshield, Arent Schuyler,** an American naval officer; born in New York State in 1843; graduated at the United States Naval Academy and participated in both attacks on Fort Fisher in the Civil War. Later he rose through the grades to the rank of captain. During the war with Spain in 1898 he was a member of the Board of Strategy. In 1900 he was chief of the Bureau of Navigation and in 1902 became commander of the European Squadron. Died in 1908.

**Crowther, Samuel Adjai,** the first negro bishop of the Church of England; was born in Yoruba. He was carried into slavery in 1821, but was freed, with a large company of his countrymen, by a British man-of-war in 1822, and landed at Sierra-Leone, where he had the advantages of a school and soon became an excellent scholar. He finished his education in England, and accompanied the first and second Niger expeditions. In 1864 he was ordained Bishop of the Niger. He died in 1891.

**Croydon,** a borough of England, in County Surrey, ten miles south of London. It is a place of ancient origin. Of special interest are the remains of the ancient palace, long a residence of the archbishops of Canterbury. Pop. (1921) 191,500.

**Crozier, William,** an American military officer; born in Carrollton, O., Feb. 19, 1855; graduated at the United States Military Academy in 1876; served for three years in the West, was Instructor of Mathematics at the Military Academy in 1879–1884, when he entered the Ordnance Department; and was commissioned captain in 1890. He invented a wire wrapped rifle and a ten-inch gun, and with General Buffington, the disappearing gun carriage. He took part in the American-Spanish War; and was appointed Chief of Ordnance with the rank of Brigadier-General in November, 1901.

**Crucible,** a melting-pot of earthenware, porcelain, refractory metal, or plumbago, adapted to withstand high temperatures.

**Crucifix,** a cross with the effigy of Christ fixed to it. The crucifix first began to take the place of the plain cross in the time of Constantine, but was never publicly acknowledged by the Greek Church. It was not till the Carlovingian age that it became general in the Latin Church. On the earlier crucifixes, Christ is represented as alive, with open eyes, and generally clad, and fastened with four nails. On later ones he is represented as dead, naked, except for a cloth round the loins, and fastened with three nails, the two feet pierced by a single nail.

**Cruden, Alexander,** a Scotch writer; born in Aberdeen, May 31, 1701. His "Concordance to the Old and New Testaments" is the familiar authority on the subject. He died in London, Nov. 1, 1770.

**Cruger, Mrs. Julia Grinnell (Storrow),** pen name "Julien Gordon," American novelist; born in Paris, France. Her home is in New York. She has written several popular novels.

**Cruikshank, George,** an English pictorial satirist; born in London,

Sept. 27, 1792. His illustrations for Hone's political squibs and pamphlets and especially those dealing with the Queen Caroline trial, attracted much attention. He illustrated a number of Dickens' works. In his late years he devoted himself to oil-painting. He died Feb. 1, 1878.

**Cruiser,** one who cruises about; specifically, an armed vessel which cruises about, either to protect the commerce of its own country or to inflict damage on that of another. The cruiser rates just below the battleship and just above the gunboat. An armored cruiser has side or vertical armor and horizontal or deck armor. A protected cruiser has horizontal or deck armor only. At the beginning of 1925 the United States navy had in service 5 cruisers and 8 light cruisers. Out of commission she had 6 cruisers and 8 light cruisers. Building 2 light cruisers by terms of Armament Pact the United States is allowed 18 capital ships (battleships and battle cruisers).

**Crusades,** the wars which were carried on by the Christian nations of the West, from the end of the 11th till the latter half of the 13th century for the conquest of Palestine. They were called Crusades because all the warriors who followed the holy banner wore the sign of the cross.

**Crustacea,** a sub-kingdom of the great group of articulate or annulose animals, and agrees with the Insects, Arachnids and Myriapods in having the body divided into transverse rings or somites, all of which may and some do possess each a pair of appendages or limbs made up of several pieces jointed or articulated to each other. This character of the limbs separates the group from the annulate animals (earth-worms, sand-worms, tube-worms, leeches), the limbs of which consist only, when present, of projections of the integument supporting movable bristles. The Crustacea are mostly aquatic, and all, even the terrestrial forms, breathe through the integument, or through the projections of the integument which are known as branchiæ or gills. Locomotion is by the limbs in walking or swimming, or by the limbs together with the flapping of the posterior part of the body, as in the lobster.

**Cruz y Goyeneche, Luis de la,** a Chilian military officer; born in Concepcion, Aug. 25, 1768. He bore a leading part in the revolution against Spain, commanding a regiment and falling into the hands of the enemy, but was liberated in 1817. He next became a political leader of the young republic, serving for a time as acting President of Chile. He died near Valparaiso, Oct. 14, 1828.

**Cryolite,** a mineral composed of aluminum, sodium and fluorine. It is found in large quantities in Greenland. The name signifies ice or frost stone. It also occurs in the Ural Mountains, but not abundantly.

**Crypt,** originally a subterranean cell or cave, especially one constructed for sepulture. From the usage of these by the early Christians crypt came to signify a church underground or the lower story of a cathedral or church. It is usually set apart for monumental purposes, but is sometimes used as a chapel.

**Cryptography,** the art of writing in secret characters or cipher, or with sympathetic ink. The simplest method consists in choosing for every letter of the alphabet some sign or another letter or group of letters.

**Crypton,** or **Krypton,** a new element discovered as existing in the atmosphere, less easily reduced to a liquid form than nitrogen, oxygen, or argon.

**Cryptoprocta,** a fierce carnivorous animal of Madagascar. It is plantigrade, resembles a weasel, three feet long, and attacks the largest animals with great ferocity.

**Crystal,** in chemistry and mineralogy, a clear transparent body, which, by the attraction of its particles, has assumed the form of one of the regular geometric solids, being bounded by a number of plane surfaces. Crystals occur with an almost infinite variety of forms — calcareous spar having alone more than 200 forms in more than a thousand different combinations, and some crystals have as many as 300 different sides. But all crystals may be grouped in accordance with certain systems.

**Crystalline Rocks,** a name given to all rocks having a crystalline structure.



(C) Pacific and Atlantic

## THE PRESIDENT'S PALACE, CUBA

Where the President of the United States was entertained during his visit to Cuba.


CUBA
SCALE OF MILES
0 50 100
112 MILES TO THE INCH
Capitals of Provinces ⊙ Submarine Telegraph Cables
GULF OF MEXICO
MEXICO
FLORIDA
Miami
Key West
Florida Keys
Knights Key
Dry Tortugas
FLORIDA STRAIT
YUCATAN CHANNEL
CARIBBEAN SEA
GULF OF MEXICO
TROPIC OF CANCER
HAVANA
Matanzas
PINAR DEL RIO
MATANZAS
SANTA CLARA
Sta. Clara
Cienfuegos
Trinidad
Sancti Spiritus
Gulf of Batabano
Islas de Mangles
ISLE OF PINES
Nueva Gerona
Santa Fe
Large Key
Castillos Key
C. Frances
C. Corrientes
Frances Pt.
San Antonio
San Felipe Keys
Bahia Honda
Mariel
Guanabacoa
Marianao Beach
Cabanas
Batabano
Jaruco
Matanzas B.
Hicacos Pt.
Cardenas
Caibarien
Sagua la Grande
Remedios
Yaguajay
Gaspar
Jatibonico
Morón
Ciego de Avila
Caspar
Salvador
Jucaro
Florida
CAMAGUEY
Camaguey
Nuevitas
Port Nuevitas
Port Manati
Port Malaguel
Port Padre
Gibara
Port Banes
Antilla
Holguin
Mulas Pt.
Mangle Pt.
Canete
Esteron
Cabonico
Alto Cedro
Dos Rios
Estrada
Cacocum
Guacanayabo
Great Bank of Guacanayabo
Yaribacoa
Manzanillo
Buena Esperanza
Campechuela
Media Luna
Gulf of Sta. Cruz
Sta. Cruz del Sur
Guamo
Bayamo
Santa Rita
Santa Ana
Jamaica
Baracoa
Guantanamo
Maisi
C. Maisi
ORIENTE
Sierra Maestra
C. Cruz
Portillos
Santiago de Cuba
Santiago
Morro
Aserradero
Cayo Smith
Dos Camino
El Cristo
Calimanera
Guaninicum
Cooling Sta.
Limas
Grandillo
Dunlaj
Jamaica
Pilon
Pico Turquino
Pico Cuba
Pico Real del Puerco
Pico Caracas
Pico Potrerillo
Pico Cuchillas del Toa
Pico Galan
Pico Iberia
Pico Cristal
Pico Sagua
Pico Nipe
Pico Yunque
Pico Toledo
Pico Miraflores
Pico Moa
Pico Mensura

**Crystallography,** the science which describes or delineates the form of crystals.

**Crystalloid,** a name given to a class of substances which when in solution pass easily through membranes; as opposed to colloids. Sugar, oxalic acid, etc., are crystalloids.

**Crystallomancy,** a mode of divining by means of a transparent body, as a precious stone, crystal globe, etc. The operator first muttered over it certain formulas of prayer, and then gave the crystal into the hands of a young man or virgin, who received an answer from the spirits within the crystal.

**Crystal Palace,** a well-known building at Sydenham, England, for public instruction and entertainment. The name was also given to a large building erected in New York city in 1853 for exhibition purposes, which after a successful career of five years was burned in 1858.

**Csoma de Koros, Alexander,** a Transylvanian traveler and philologist; born about 1790. He was in early life seized by the desire to investigate the origin of the Magyar race, and after a course of study at Gottingen, he went, in 1820, to the East. He spent several years in a Buddhist monastery in Tibet, diligently studying the Tibetan language and literature; imagining he recognized resemblances between the Tibetan and Magyar. He next lived some years in Calcutta, where he compiled his "Dictionary of Tibetan and English." He died in Darjeeling, as he was setting out on another journey into Tibet, in 1842.

**Ctenoid,** applied to the scales of fishes when jagged or pectinated on the edge like the teeth of a comb, as in the perch, flounder, and turbot.

**Ctesiphon,** a city of Babylonia, on the E. bank of the Tigris and opposite Seleucia, the common winter residence of the Parthian kings, and finally the capital of the Parthian kingdom. It was conquered by the Romans in 115 A. D., and destroyed by the Arabs under Omar in 637. Its ruins still attest its former magnificence.

**Cuba,** the largest and most westerly of the West Indies. It stretches in the form of a narrow crescent, convex on the N. side, at the entrance of the Gulf of Mexico, which it divides into two channels, the N. W., 124 miles wide, and the S. W., 97½ miles at its narrowest part.

Cuba is 775 miles long from Cape Maysi on the E. to Cape Antonio on the W., with a breadth varying from 30 miles to 160 miles, a coast-line of 1,976 miles, and an area of about 44,215 square miles, including adjacent islands (of which the Isle of Pines is the largest) and bays. Only about one-third of the coastline is accessible to vessels, the remainder being beset by reefs and banks. The shores, low and flat, are liable to inundations, but there are numerous excellent havens. A watershed running lengthwise through the islands, rises into mountainous heights only in the S. E., where are the Sierra de Maestra, shooting up in the Pico de Tarquinto to 8,400 feet, and the Sierra del Cobre (copper). The mountains, composed of granite overlaid with calcareous rocks, and containing minerals, especially copper and iron, are clothed in almost perennial verdure, wooded to the summits. The limestone rocks abound in caverns, with magnificent stalactites. Mineral waters are plentiful. The rivers, running N. and S., are navigable for only a few miles by small boats, but are very serviceable for irrigation of the plantations, and supply excellent drinking water. The climate, more temperate than in the other West Indian islands, is salubrious in the elevated interior, but the coasts are the haunt of fever and ague. No month of the year is free from rain, the greatest rainfall being in May, June, and July. Earthquakes are frequent in the E. Hurricanes, less frequent than in Jamaica, sometimes cause widespread desolation.

The soil of Cuba is a marvel of richness, and a large part is still covered with virgin forest. The vegetation of Cuba also includes tamarinds, palms, ferns, lianas, etc. Among the cultivated products are sugar, tobacco, coffee, cacao, rice, maize, cotton, esculent roots and tropical fruits. Among the animals are a species of tailless rat peculiar to Cuba, a great abundance of birds. Of noxious ani-

mals and insects there are the crocodile, scorpion, and mosquitoes. The rivers and seas are well stocked with fish, the turtle abounding in the shallows and sandy places of the beach. The staple production of the island is sugar. In the fiscal year 1923-24 the production was estimated at 4,062,000 tons, and 190 sugar mills were in operation.

Tobacco ranks next to sugar as a staple. Cuba produces the standard quality of cigar leaf, owing to the exquisite adaptation of the soil and climate to the development of the plant. The production of all grades in 1922 had a value of $40,000,000. The mineral wealth of Cuba is largely in the copper mines. There are almost inexhaustible deposits of this metal, part of which are found in the mountains near the E. end, known as the Sierra del Cobre, or Copper Mountains. Here a great part of the ore taken out yields 60 per cent. of pure metal. Cuba has asphalt deposits rivalling those of Trinidad for street paving. Iron ores abound. In the neighborhood of Santiago there are mountains of metal, and for a considerable period the Juragua and Daiquiri companies (American) shipped from 30,000 to 50,000 tons of the ore per month to the United States. Oranges of exquisite flavor grow spontaneously in all parts of the island, though no attention is paid to their culture or exportation. There are 32 species of the palm tree, the woods and the leaves of the majority of which could be transformed into a profitable article of commerce, but so far only two have been utilized.

In 1917 there were four lines of railway in operation having a total mileage of 1,783, besides private branch lines to all the important sugar estates. Post offices numbered 658, telegraph offices 226, and wireless stations nine, all telegraph, telephone, and wireless outfits being the property of the government, and all excepting the last being leased to private corporations. In the fiscal year 1923-24 the imports of merchandise aggregated in value $278,130,740, and the exports, $418,119,470; and in the fiscal year 1923-24 the imports from the United States amounted to $192,304,950, and the exports to the United States, $359,505,487. In 1924 the total debt was $91,000,000; the revenue, $71,048,200; the expenditure, $65,138,000.

The total population, by the enumeration of the population, according to the census of Dec. 31, 1922, was for the whole country 3,123,000. This was distributed by Provinces as follows: Pinar del Rio, 272,209; Havana, 783,014; Matanzas, 326,588; Santa Clara, 692,132; Camaguey, 235,895; Oriente, 813,197. White population, 2,193,936. Colored, 809,886. Immigrants, unclassified, 118,035. Capital, and chief port, Havana; population 1923, 432,352; Camaguey, 98,193; Cienfuegos, 95,865; Santiago, 70,332; Guantanamo, 68,883; Santa Clara, 63,151; Matanzas, 62,638; Sancti Spiritus, 58,841; Manzanillo, 56,570; Pinar del Rio, 47,857; Trinidad, 40,602.

Cuba was discovered by Columbus in the year of 1492, the discoverer calling it "the most beautiful land that eyes ever beheld." It was first settled by Spaniards at Baracoa in 1511. Havana, first settled in 1519, was reduced to ashes by the French in 1538, and again in 1554. For about one and a half centuries Cuba was in constant danger from French, Dutch, English, and West Indian filibusters. In 1762 the English, under Lord Albemarle, took Havana, which, however, was by the treaty of Paris next year restored to Spain. From 1789 to 1845 the island was a vast slave-trading center. Negro insurrections occurred in 1845 and 1848. In the latter year the United States offered $100,000,000 to Spain for the island. Rebellions against Spanish rule broke out in 1849 and in 1868. They were put down after long campaigns; but in 1895 another insurrection attained by 1898 formidable proportions. The United States battleship "Maine," while on a friendly visit, was blown up in Havana harbor, Feb. 15, 1898, and on April 19 the Congress of the United States adopted resolutions declaring Cuba independent. War with Spain began at once. Cervera's Spanish fleet was destroyed at Santiago de Cuba, July 3, and Santiago and its large army were surrendered on July 17. The leading military events of the war, so far as Cuba was concerned, were the fights at El Caney and San Juan, the battle at Santiago, and

the struggle before Las Guasimas. Under the treaty of peace the island was evacuated Jan. 1, 1899, the United States then formally assuming the government till the Cubans had adopted a written constitution and installed a satisfactory native government.

A convention to frame a constitution met in Havana, Nov. 5, 1900; on Jan. 22, 1901, received from the central committee a draft of the proposed constitution; and on Feb. 22 following adopted a series of declarations concerning the future relations of Cuba with the United States. These declarations were not acceptable to the United States, and Congress on March 2 passed what was known as the Platt Amendment, in which relations that would be satisfactory were detailed. On June 12 the Cuban convention adopted the Platt Amendment in its entirety. General elections for president, senatorial electors, representatives, and provincial governors and counsellors were held Dec. 31, 1901, and a president, vice-president, and the senators were duly elected Feb. 24, 1902, Thomas Estrada Palma becoming the first president.

On May 20, 1902, when the republic of Cuba formally came into existence, the territory was turned over to President Palma by Governor-General Wood, the Cuban flag raised and saluted, and the American army withdrawn from the island. After much opposition a treaty was arranged between the United States and Cuba giving the products of each preferential advantages. In 1906 an insurrection against President Palma's government forced the United States to intervene under the provisions of the Platt Amendment, and establish a provisional government. This was terminated Jan. 14, 1909.

In 1917 Gen. Mario G. Menocal was re-elected President. The Cabinet consisted of the Secretaries of State, Justice, Interior, Finance, Agriculture, Commerce and Labor, Public Instruction, Public Works, and Sanitation and Charity. In 1925 the president was Dr. Alfredo Zayas. President-elect for term 1925-1929, Gerardo Madrado.

**Cucking-stool,** a chair used for punishment. Scolds, cheating bakers or brewers, and other petty offenders were placed in it, usually at their own doors, to be hooted at and pelted by the mob. It has been frequently confounded with the ducking-stool.

**Cuckoo** (genus Cuculus), a scansorial or climbing bird, the type of the family Cuculidæ. The note from which it derives its name is a love-call used only in the mating season. Most of the species are confined to hot countries, more especially India and Africa, though some are summer visitants of colder climates. In America the cuckoos are represented by three sub-families: the anis, the road-runners, and the tree-cuckoo; they build their own nests, not like the European cuckoos, which place their eggs in the nests of other birds.

**Cuckoo Flower,** or **Lady's-smock,** a common and pretty meadow plant, found in swamps N. of New York; blossoms in April or May, presenting a very pleasing appearance.

**Cuckoo-spit**, a froth or spume found on plants, being a secretion formed by the larva of a small homopterous insect.

**Cucumber,** an article of food, having yellow flowers in the axils of the leaf stalks. The leaves are large, the stems weak and trailing. It is a native of the S. of Asia and of Egypt. From Europe the cucumber was brought to this country, where it forms an important product, both as a fresh food and for pickling purposes.

**Cucuta, San Jose de,** a town in the Colombian Department of Santander, on the Rio Zulia, 35 miles S. of Puerto Villamizar. It is the third commercial town, a center of coffee and cacao cultivation. It was destroyed by earthquake in 1875, but has been well rebuilt. Pop. (Est.) 22.000. Rosario de Cucuta, to the S. E., was the seat of the first Colombian congress in 1821. It has large plantations of coffee and cacao.

**Cuddapah,** or **Kadapa,** a district and town of Hindustan, presidency of Madras. The district, of which the area is 8,745 square miles, is traversed N. to S. by the Eastern Ghauts, and watered by the Pennar and its affluents. The forests contain much valuable timber, and the minerals include iron ore, lead, copper, diamonds, etc. Agriculture is in a flourishing condi-

tion, grain, cotton, and indigo being largely grown. Pop., 1,121,038.

**Cudlip, Annie Thomas,** an English novelist; born in Aldborough, Oct. 25, 1838. She married a clergyman, and in 1863 published "The Cross of Honor," a successful novel, since followed by numerous other popular works.

**Cuenca,** a city of Ecuador, on the Rio Paute, 190 miles S. S. W. of Quito; on a fertile tableland, 8,469 feet above the sea, and enjoys a perpetual spring, with a mean temperature of 58° F. Pop. (including Ejido, or Indian quarter, (Est.) 40,000.

**Cuernavaca,** capital of the Mexican State Morelos, lies in a lovely and fruitful valley, about 40 miles S. of Mexico city. It has a church built by Cortes, an agricultural school, and refineries of sugar and brandy. Pop. 12,776. Near by is the famed teocalli of Xochicalco, with five terraces.

**Cufic,** pertaining to Cufa, a town founded by Omar I., in A. D. 637; also relating to inscriptions and coins in Cufic writing.

**Culdees,** a religious order which at an early period had establishments in many parts of Great Britain and Ireland, but are especially spoken of in Scotland.

**Culebra Ridge,** the rocky height rising 300 ft. on the Panama Canal route, 9 m. from the Pacific, and forming the isthmian backbone and Continental divide. The cut through the ridge was a difficult undertaking, and several times since the opening of the canal (1914) navigation has been interrupted by extensive landslides, especially in 1915–16, when for a time it was suspended entirely.

**Cullen, Paul,** an Irish churchman; born near Ballytore, in County Kildare, April 27, 1803. He was ordained priest, and filled in succession the offices of vice-rector and rector of the Irish College in Rome, and rector of the Propaganda College. During the period of Mazzini's power in Rome in 1848, Cullen saved the property of his college by placing it under American protection. At the close of 1849 he unexpectedly found himself nominated to the archbishopric of Armagh and primacy of Ireland. Translated to Dublin in 1852, he was created a cardinal priest in 1866, the first Irishman who had reached that rank. He died in Dublin Oct. 24, 1878.

**Culloden Moor,** a heath in Scotland, 4 miles E. of Inverness, celebrated for the victory obtained April 27, 1746, by the Duke of Cumberland over Prince Charles Edward Stuart (the Pretender) and his adherents. The battle was the termination of the attempts of the Stuart family to recover the throne of England.

**Cullum, George Washington,** an American military officer; b. in New York city, Feb. 25, 1809; graduated from West Point, and was engaged in instructing at West Point on practical military engineering. He assisted in the construction of Fort Adams R. I., and during the Civil War, was chief engineer at the siege of Corinth. He was superintendent of the United States Military Academy 1864-66. From that time he was a member of the Board of Engineers for Fortifications, until he was placed on the retired list in 1874. He died in New York city, Feb. 28, 1892, bequeathing $250,000 for the erection of a Memorial Hall near the Military Academy, and $40,000 for furnishing it with military busts, paintings and other appropriate objects.

**Cumæ,** a very ancient city of Italy, in Campania, the oldest colony of the Greeks in Italy, founded about 1030 B. C. by colonists from Chalcis, in Eubœa, and from Cyme in Asia Minor. It was destroyed A. D. 1207, and a few ruins only now exist.

**Cumana,** a town of the Venezuelan State of Bermudez, on the Manzanares, a mile above its mouth, where the port of Puerto Sucre lies on the Gulf of Cariaco. It is chiefly of interest as the oldest European town on the South American mainland, having been founded by Christopher Columbus' son Diego as New Toledo in 1521. It has suffered much from earthquakes.

**Cumberland,** a river of the United States which runs through Kentucky and Tennessee into the Ohio, having a course of about 600 miles, navigable for steamboats to Nashville, nearly 200 miles.

**Cumberland, William Augustus, Duke of,** second son of George II. of England; born in 1721. At

the battle of Dettingen he was wounded; at Fontenoy, he had command of the allied armies; and in 1757 he lost the battle of Hastenbeck, and concluded the convention by which Hanover was placed at the mercy of the French. He died in 1765.

**Cumberland,** city and capital of Allegany county, Md.; on the Potomac river, at the head of the Chesapeake & Ohio canal, and on the Baltimore & Ohio and other railroads; 178 miles W. of Baltimore; is in a fine mountainous section; has large steel, iron, glass, cement, brick, leather, and flour plants; and controls a coal, iron ore, and fire clay section nearby. Pop. (1920) 29,837.

**Cumberland Gap,** a narrow passage about 500 feet deep through the Cumberland Mountains; between Kentucky and Tennessee and at the W. extremity of Virginia. It was occupied by the Confederate General Zollicoffer in his retreat Nov. 13, 1861. On March 22, 1862, the Union forces attacked without definite results, but on June 18 occupied the Gap. On Sept. 17, however, the Federal General Morgan was compelled to retire, the Confederate General Bragg occupying the place Oct. 22. On Sept. 8, 1863, the Confederate General Frazer surrendered to General Shackelford.

**Cumberland Mountains,** in Tennessee, part of a well-wooded range of the Appalachian system, rarely exceeding 2,000 feet in height.

**Cumberland Presbyterians,** a religious denomination which sprang up in 1810 in the State of Kentucky, in consequence of a dispute between the presbytery of Cumberland in that State, and the Kentucky Synod of the Presbyterian Church in America, concerning the ordination of persons who had not passed through the usual educational curriculm, but whose services the presbytery regarded as demanded for the ministry by the exigencies of the times.

**Cumberland Road, The,** a highway about 800 miles long, extending from Fort Cumberland, Md., over the Alleghany Mountains, to Vandalia, Ill. The road commenced in 1806, and finished about 1840, was known as "The Great National Pike." It was built by the Federal Government, and was under the control of the Washington authorities until 1856, when it was relegated to the various States through which it passed. Prior to railroads it was the great avenue to the West, and over it the pioneers of Western development emigrated.

**Cumberland, The,** an American sloop of war, of 30 guns, sunk of Newport News, Hampton Roads, Va., by the Confederate iron-clad ram, "Merrimac," March 8, 1862, going down with all on board and her colors flying. Nearly all of her crew perished.

**Cumberland University,** a co-educational institution in Lebanon, Tenn.; organized in 1842, under the auspices of the Cumberland Presbyterian Church. The university includes a preparatory and a law department, and the theological seminary of the Church, founded in 1852. It has an average annual enrollment of 500 students.

**Cumbria,** an ancient British principality, its capital being Alcluyd or Dumbarton. It was possibly at one time the chief seat of the power of Arthur, and in the 6th century was an important and powerful kingdom. It speedily, however, fell under Saxon domination, and early in the 11th century was given by Edmund of Wessex to Malcolm of Scotland to be held as a fief of the crown of England. The name still survives in Cumberland.

**Cumming, Alfred,** the first Governor of Utah was born in 1807. He was appointed Governor of the territory of Utah in 1857, and proceeded thither with an armed force. Brigham Young the Mormon President forbade the entrance of the expedition and declared the region under martial law. A pacific compromise was effected and Governor Cumming was installed in 1858. He died 1873.

**Cummings, Amos J.,** a journalist and politican, born at Conkling, Broome Co., N. Y. 1841. He learned the trade of printer, and had an adventurous early career in "the invasion of Nicaragua" 1857, and as sergeant-major during the Civil War. He became editor of the N. Y. "Weekly Tribune," and later of the "Evening Sun." In 1887 he was elected Democratic Member of Congress for New

York, and in 1892 and 1896 delegate to the Democratic National Convention. He died 1902.

**Cummins, Maria Susanna,** an American novelist; born in Salem, Mass., April 9, 1827; d. in Dorchester, Mass., Oct. 1, 1866.

**Cumulative Vote,** the system by which every voter is entitled to as many votes as there are persons to be elected, and may give them all to one candidate, or may distribute them among the candidates, as he thinks fit.

**Cunard, Sir Samuel,** founder of an English steamship line; born in Halifax, Nova Scotia, where his father, a Philadelphia merchant, had settled, Nov. 21, 1787. Becoming early a successful merchant and shipowner, he went to England in 1838, joined with George Burns, Glasgow, and David M'Iver, Liverpool, in founding the British and North American Royal Mail Steam Packet Company, and obtained a contract from the British government for the mail service between Liverpool and Halifax, Boston, and Quebec. The first passage was that of the "Britannia" in 1840, the time occupied being 14 days 8 hours. Iron steamers were first used in 1855, and paddle-wheels gave way entirely to the screw after 1862. From its small but successful beginning, Cunard's undertaking soon developed into one of the vastest of private commercial concerns. In 1878 it was made into a joint stock company. He died in London, April 28, 1865.

**Cunaxa,** in Babylonia, E. of the Euphrates, about 60 miles N. of Babylon, noted for the battle (401 B. C.) between Cyrus the younger and his brother Artaxerxes Mnemon, in which the former was killed.

**Cundinamarca,** a central department of Colombia, extending E. to Venezuela. It is the second largest department of the republic, with an area of 8,046 square miles, excluding the territory to the S. E. of the Meta, which is about as large as Italy. Pop. (Est.) 720,000 (including 17,000 wandering Indians). The capital is Bogota.

**Cuneiform Writing,** the name applied to the wedge-shaped characters of the inscriptions on old Babylonian and Persian monuments; sometimes also described as "arrow-headed" or "nail-headed" characters. They appear to have been originally of the nature of hieroglyphs, and to have been invented by the primitive Akkadian inhabitants of Chaldea, from whom they were borrowed by the conquering Babylonians and Assyrians. The first date that can be assigned to the use of cuneiform writing is about 3800 B. C., and its use was continued until after the birth of Christ.

**Cunningham, Allan,** a Scotch poet and miscellaneous writer; born in Keir, Dumfriesshire, Dec. 7, 1784. When a youth he served as an apprentice to a stone-mason. His "Critical History of the Literature of the Last Fifty Years," and other books, prompted Sir Walter Scott to call him a genius. Died in London, Oct. 30, 1842.

**Cupid,** the god of Love, generally represented as a beautiful naked boy, winged, blind, and armed with a bow and a quiver full of arrows, with which he transfixed the hearts of lovers.

**Cupola,** in architecture, a spherical vault on the top of an edifice; a dome or the round top of a dome. The term is also applied distinctively to the concave interior as opposed to the dome forming its exterior.

**Cupping,** a surgical operation consisting in the application of the cupping-glass in cases where it is desirable to abstract blood from, or draw it to, a particular part.

**Cura,** Venezuela, a city, the former capital of Miranda State, situated 1600 feet above sea-level, near Lake Valencia, is an agricultural centre with a population of 12,200.

**Curacoa,** an island and colony of the Dutch West Indies in the Caribbean Sea; 46 miles N. of Venezuela; 36 miles long and 8 miles broad; capital Willemstad, principal harbor Santa Anna. It is hilly, wild, and barren, with a hot, dry climate. Yellow fever visits it every sixth or seventh year. Fresh water is very scarce, and serious droughts occur. The tamarind, cocoa-palm, banana, and other useful trees are reared; among them three varieties of orange, from one of which the Curacoa liquor is made. Sugar, tobacco, cochineal, and maize are also produced, but the staple exports are

salt, and a valuable phosphate of lime used as a manure in its natural state, or made to yield valuable superphosphates. The islands of Curacao, Bonaire, Aruba, St. Eustache, Saba, and the S. part of St. Martin, form a Dutch government. Area 403 square miles; pop. (1922) 56,036.

**Curari,** a resinous substance used by the Indians of South America for poisoning their arrows, said to be the aqueous extract of a climbing plant. It is a deadly poison when introduced into the blood through a wound. It acts on the motor nerves, arresting their functions, while the sensorial nerves retain their activity. Death ensues from paralysis of the respiratory organs. Curari is said to contain no strychnine, and taken into the stomach produces no ill effects.

**Curassow,** the name given to a large gallinaceous bird, more fully denominated the crested curassow. It is found in flocks in the forests of Mexico, Guiana, and Brazil.

**Curate,** properly an incumbent who has the care of souls; now generally restricted to signify the substitute or assistant of the actual incumbent.

**Curator,** in civil law, the guardian of a minor who has attained the age of 14, of persons under various disabilities, or of the estate of deceased or absent persons and insolvents. In learned institutions the person who has charge of the library or collections of natural history, etc., is often called the curator.

**Curb,** a disease in horses consisting of strain of the straight ligament which runs down the back of the hock; is most common in animals with straight small hocks and that conformation known as sickle hams; while like other strains it occurs from sudden and violent exertion, generally causing lameness, which is most apparent in trotting, and, in slight cases, usually decreases after the animal has been out for ten minutes.

**Curcas,** a large bush or a small tree, a native of the hotter parts of the tropics. The seeds are called purging-nuts.

**Curé,** the name applied in France to a priest with a cure of souls, properly the priest of a regular parochial church, but applied to any pastor.



**Curfew,** a bell rung every evening as a signal to the people to extinguish all fires and retire to rest. Derived from the French "couvre-feu, cover fire," it was introduced into England by William the Conqueror, and was regarded by the English as a badge of servitude. The original time for ringing it was 8 o'clock P. M., but in a few places in England and France the custom is still kept up of ringing a bell at 9 o'clock P. M., and the old name is still retained.

**Curfew Laws,** in the United States, laws intended to keep young people off the streets after a certain hour at night. While an ordinance of this kind has been in force in Salem, Mass., ever since the days of the Puritans, it is only of late years that other cities have seen its advisability and adopted the same measure. The law, in general, provides that persons under 15 years of age shall not be on the streets at night after 9 o'clock in summer, and 8 in winter, without the written consent of their parents or guardians.

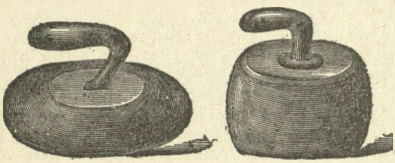
**Curia,** anciently one of the thirty divisions of the Roman people, which Romulus is said to have established: also the place of assembly for each of these divisions.

**Curia, Papal,** in its stricter sense the authorities which administer the Papal primacy; in its common wider use all the authorities and functionaries forming the Papal court.

**Curie, Pierre** and **Marie (Sklodowska),** scientists, the discoverers of radium. Pierre Curie, b. Paris, May 15, 1859, the son of a physician, was educated at the Sorbonne and devoted himself to chemical research. He was associated in his work with Marie Sklodowska, b. 1868 at Warsaw, whom he married, 1895, when he became professor in the School of Physics and Chemistry at Paris. Under pecuniary difficulties they continued their scientific work, and in 1898 discovered radio-active substance in pitchblende. They separated polonium and afterwards radium. Prof. Curie was killed by a wagon Apr. 19, 1906. Mme. Curie was appointed to continue his work as professor.

**Curlew,** a wading bird of the family of Snipes. Male of a bright ash

color on the head and breast, here and there clouded with red, white on the belly, and spotted. Female more ash-colored, the red less pure. It is found in most parts of the world. Its food consists of earthworms, slugs, and other mollusks, insects, etc. There are several American species.



CURLING IRONS.

**Curling,** a game of Scotch origin, played on ice with various shaped stones, fitted with handles or grips.

**Curran, John Philpot,** an Irish advocate and orator; b. in Newmarket, County Cork, in 1750. In 1783 he obtained a seat in the Irish Parliament as member for Kilbeggan. In debate, Curran was usually charged with the duty of replying to opponents; for which important duty his ready speech and cutting retort admirably qualified him. But his sarcasm led him into several duels, in which fortunately little harm was done on either side. He was appointed Master of the Rolls in Ireland in 1806, an office he held till 1813, when he resigned. He died in London in 1817.

**Currant,** a delicious fruit. The dried currants of the stores are, if imported, the fruit of a small grape cultivated in what was the ancient Ithaca, at Patras in the Morea, in Zante, Cephalonia, etc. Just as good currants come from California. The fresh currants, red, golden, dark, and black, are among the best of American garden fruits.

**Currency,** the current money or circulating medium of a country, whether in coin or in paper. The metallic currency comprises the gold, silver, nickel, and copper coin in circulation in any country. In the United States, England, and France bronze coin is used instead of copper. Nickel minor coins, 25 per cent. nickel and 75 per cent copper, are used in the United States, Belgium, Switzerland, and Germany. Coins of platinum have been used in Russia. The relation between metallic and paper currency and various intricate questions thence arising have long occupied the attention of political economists. In the United States the dollar is the unit of value. The gold dollar contains 23.22 grains of gold and 2.58 grains of alloy, having a total weight of 25.8 grains. The silver dollar contains 371.25 grains of silver and 41.25 grains of alloy, having a total weight of 412.5 grains. Paper currency comprises treasury notes, bank-notes, bills of exchange, or checks, which are employed in business transactions as substitutes or representatives of coin. All money of the United States is redeemable in gold, which is the standard of value.

**Curry,** an Eastern condiment, a powder composed of cayenne-pepper, coriander, ginger, turmeric, and other strong spices.

**Curry, Daniel,** an American clergyman; born near Peekskill, N. Y., Nov. 26, 1809. He graduated at Wesleyan University, and, after holding various pastorates and professorships, was chosen President of Indiana Asbury University in 1854. Later he became editor of "The Christian Advocate," and in 1884 editor of the "Quarterly Review." He died in New York city, Aug. 17, 1887.

**Curry, Jabez Lamar Monroe,** educator, soldier, diplomat, and author; United States Minister to Spain, 1885–1888. Born Lincoln co., Georgia, June 5, 1825; graduated from the University of Georgia in 1843, and from the Dane Law School of Harvard University in 1845. Served in the Confederate Congress, and was lieutenant-colonel of Confederate cavalry. After the Civil War he was President of Howard College, Alabama, and Professor of English Philosophy and Constitutional and International Law in Richmond College, Virginia; President Board of Foreign Missions of Southern Baptist Convention, General Agent Peabody Education Fund and John F. Slater Education Fund, etc.; author of "Struggles and Triumphs of Virginia Baptists," "Civil History of the Confederate Government," etc. Died, 1903.

**Currying,** the art of dressing cowhides, calves'-skins, seal-skins, etc., principally for shoes, saddlery, or harness, after they have come from the tanner.

**Curtin, Andrew Gregg,** an American politician; born in Bellefonte, Pa., April 22, 1815. He studied law at Dickinson College, and was admitted to the bar. Entering politics, he became secretary of the commonwealth of Pennsylvania in 1854, governor in 1860, and again in 1863, being one of the most noted "war governors." In 1869 he was appointed minister to Russia. In 1873 he left the Republican party, and from 1881 to 1887 sat in Congress as a Democrat. He died in Bellefonte, Pa., Oct. 7, 1894.

**Curtin, Jeremiah,** linguist and author, born Milwaukee, Wis. 1840, was connected with the Smithsonian Institution, 1883-91. He knew 70 languages; translated works by Tolstoy, etc. He died Dec. 14, 1906.

**Curtis, Carlton Clarence,** an American botanist; born in Syracuse, N. Y., Aug. 26, 1864; became instructor in botany at Columbia University in 1899; works include "Nature and Development of Plants" (1915).

**Curtis, Edward,** an American medical scientist; born in Providence, R. I., June 4, 1838. He graduated at Harvard in 1859, and took his medical degree at the University of Pennsylvania in 1864. He was an army surgeon during the Civil War and after 1870 a member of the faculty of the College of Physicians and Surgeons in New York city. He made a specialty of microscopic study. He died Nov. 28, 1912.

**Curtis, George Ticknor,** an American lawyer; born in Watertown, Mass., Nov. 28, 1812. In addition to his eminence at the New York bar, he was noted as the author of an authoritative "History of the Constitution of the United States." He died in New York, March 28, 1894.

**Curtis, George William,** an American author; born in Providence, R. I., Feb. 24, 1824. He was an early abolitionist, and a leader in the Republican party from the first; for many years the editor of "Harper's Weekly," and the writer of the "Editor's Easy Chair" in "Harper's Monthly," besides the "Manners Upon the Road" series for "Harper's Bazar." He was also a lecturer of great popularity. He died on Staten Island, N. Y., Aug. 31, 1892.

**Curtis, William Eleroy,** an American journalist; born in Akron, O., Nov. 5, 1850. He was for several years director of the Bureau of American Republics, and was chief of the Latin-America department and historical section of the World's Columbian Exposition. He died Oct. 5, 1911.

**Curtius, Ernst,** a German archæolcgist and historian; born in Lubeck, Sept. 2, 1814; died July 11, 1896.

**Curtius, Georg,** brother of the preceding; also a distinguished philologist, and notable for his application of the comparative method to the study of Greek and Latin languages; born in Lubeck, April 16, 1820. He died Aug. 12, 1885.

**Curtius, Marcus** or **Mettus,** a youthful Roman hero, who sacrificed his life for the welfare of his country, 362 B. C. A chasm having suddenly appeared in the Forum, the oracles declared that it would never close until it received Rome's most precious possession. Curtius on horseback, in full armor, exclaiming "Rome has no richer possession than valor and arms," leaped into the chasm, which was subsequently filled with the offerings made to his memory. An altar to Curtius was discovered in the Forum during the excavations of 1904.

**Curtius, Rufus Quintus,** a Roman historian, who wrote the history of Alexander the Great in 10 books, the first two of which are lost. The exact period in which he flourished is not known, no writer of any earlier date than the 12th century making any mention of his work.

**Curule Magistrates,** in ancient Rome, the highest dignitaries of the state, distinguished from all others by enjoying the privilege of sitting on ivory chairs when engaged in the public functions.

**Curve,** a line formed by a moving point which continually changes its direction in contradistinction to a straight line.

**Curzon, George Nathaniel,** an English colonial official; born in Kedleston, Jan. 11, 1859. He graduated

at Oxford, and in 1885 entered the cabinet of Lord Salisbury, becoming Under-secretary of State for India in 1891 and foreign affairs in 1895. In the latter year he married Mary Victoria Leiter, daughter of Levi Z. Leiter, of Chicago, and in 1898 he was appointed Viceroy of India, and created a baronet, with the title of Lord Curzon of Kedleston. He resigned, Aug. 20, 1905, owing to difficulties with Lord Kitchener. His wife died in 1906. Created Marquis. Died, 1925.

**Cush,** the name of a region inhabited by tribes of the Hamite family, so called. But there seems to have been an antediluvian Cush, and Cush the Hamite may have had his name from a settlement or allotment there. The chief habitations of the Cushites were to the S. of Egypt, in the extensive tracts called Ethiopia. They also appear to have spread in the Arabian peninsula.

**Cushing, Caleb,** an American jurist, statesman, and diplomatist; born in Salisbury, Mass., Jan. 17, 1800. He was the first United States commissioner to China; in 1853 became Attorney-General; was counsel before the Geneva Arbitration Tribunal over the "Alabama Claims;" and from 1874-77 was minister to Spain. He wrote "The Practical Principles of Political Economy" and was the author of several other economical and historical works. He died in Newburyport, Mass., Jan. 2, 1879.

**Cushing, Frank Hamilton,** an American ethnologist, born in Northeast Pa., July 22, 1857. When 19 years old he was made curator of the ethnological exhibit at the Centennial Exposition in Philadelphia, and in 1897 became connected with the United States Bureau of Ethnology. He died in Washington, April 10, 1900.

**Cushing, William,** an American jurist; born in Scituate, Mass., March 1, 1732. He graduated at Harvard in 1751, became judge of probate in Maine in 1768, judge of the Massachusetts Superior Court in 1772, and chief-justice in 1777. Washington appointed him associate justice of the Supreme Court of the United States in 1789, and in 1796 offered him the post of Chief-Justice, which he declined. He died in Scituate, Mass., Sept. 13, 1810.

**Cushing, William Barker,** an American naval officer; born in Delafield, Wis., Nov. 4, 1842. He entered the navy as a volunteer officer in 1861, and distinguished himself in a number of brilliant operations. His greatest exploit was in October, 1864, when he volunteered to destroy the Confederate ram, "Albemarle," and on the night of Oct. 27 accomplished the feat. For this he received the thanks of Congress, and was made a lieutenant-commander, becoming a commander in 1872. He died in Washington, D. C., Dec. 17, 1874.

**Cushman, Charlotte Saunders,** an American actress born in Boston, July 23, 1816; appeared first in opera in 1834, and as Lady Macbeth in 1835. In 1844 she accompained Macready on a tour throughout the Northern States, and afterwards appeared in London. Miss Cushman retired from the stage in 1875, and died in Boston, Feb. 18, 1876.

**Cushman, Robert,** one of the founders of Plymouth Colony, born in Kent, England, about 1580. He chartered the Mayflower with Carver. He came to America in 1621, and returned to England shortly afterwards to represent the colony. He died, 1625.

**Custard Apple,** a native of the West Indies, but is cultivated in India and the adjacent countries. It has yellow pulp. It is eaten, but is not so much prized as some other species of the genus.

**Custer, Elizabeth (Bacon),** an American writer; born in Monroe, Mich.; widow of Gen. George A. Custer. She is author of "Boots and Saddles, or Life in Dakota with General Custer"; "Tenting on the Plains, or General Custer in Kansas and Texas"; etc.

**Custer, George Armstrong,** an American soldier; born in New Rumley, O., Dec. 5, 1839; graduated at West Point in 1861; and served with distinction during the Civil War. He afterward had various cavalry commands in the West, and several times defeated hostile Indians. On June 25, 1876, with a force of 1,100 men, he attacked a body of Sioux, afterward found to number some 9,000, en-

camped on the Little Big Horn, in Montana, and he and his entire command were destroyed.

**Custis, George Washington Parke,** an American writer; born in Mt. Airy, Md., April 30, 1781; was the adopted son of George Washington. He wrote "Recollections of George Washington," etc. He died at Arlington House, Fairfax co., Va., Oct. 10, 1857.

**Customs,** indirect taxes levied on goods imported into, or exported from, a country. In the United States export duties are forbidden by the Constitution. The import duties are of five kinds, namely, ad valorem, compound, discriminating, minimum, and specific. Ad valorem duties are a tax of a certain percentage of the value of the merchandise. Compound duties are a mixture of specific and ad valorem duties and are applied to manufactured articles, the raw materials of which are dutiable. Discriminating duties are additions to the usual rates levied on goods imported from certain countries or portions of the world, or imported in vessels of certain nations. Specific duties are a tax of a certain specified sum for each pound or yard, or other unit of measure of the merchandise; usually irrespective of its quality or value.

**Customs Appeals, Court of,** a new tribunal of the United States, created by the Aldrich-Payne tariff law, and constituted by the President in 1910. It was designed to relieve the district, circuit, and various appeals courts of causes where importers and the national government are dissatisfied with the decisions of the General Appraisers.

**Custozza,** a village 10 miles S. W. of Verona, where the Italians have twice been utterly defeated by the Austrians. On July 23–25, 1848, Charles Albert was routed after severe fighting by Radetzky with a smaller force, and forced to retreat behind the Mincio; and on June 24, 1866, Victor Emmanuel with 130,000 men was defeated by the Archduke Albert with 75,000 men.

**Cutch,** a State in the W. of India, lying to the S. of Sind; under British protection; area, 7,616 square miles. Pop. (1911) 513,429.

**Cuthbert, St.,** a celebrated father of the early English Church; born, according to tradition, near Melrose, about 635. He became a monk, and in 664 was appointed prior of Melrose, which after some years he quitted to take a similar charge in the monastery of Lindisfarne. Still seeking a more ascetic life, Cuthbert then retired to the desolate isle of Farne. Here the fame of his holiness attracted many great visitors, and he was at last persuaded to accept the bishopric of Hexham, which he, however, resigned two years after, again retiring to his hermitage in the island of Farne, where he died in 687.

**Cuticle,** the epidermis or scarfskin; the delicate and transparent membrane, which, destitute of nerves and blood-vessels, invests the whole surface of the body, except the parts occupied by the nails. It is designed to protect the true skin from injury.

**Cutler, Manasseh,** an American clergyman; born in Killingly, Conn., May 3, 1742. He was graduated at Yale in 1765, became a lawyer in 1767, a Congregational minister in 1771, and a chaplain in the Revolutionary army in 1776. After the war he helped form the Ohio Company and had a leading part also in the formation of the State of Ohio. He died in Hamilton, Mass., July 28, 1823.

**Cutlery,** a term applied to all cutting instruments made of steel. The finer articles, such as the best scissors, penknives, razors, and lancets are made of cast-steel. Table-knives, plane-irons, and chisels of a very superior kind are made of shear-steel, while common steel is wrought up into ordinary cutlery.

**Cutter,** a name given to small vessels. They are much like the sloop in rig. Such small vessels occasionally venture on long voyages, several instances being on record of their having crossed the Atlantic. In heavy weather, working to windward, the cutter shows to best advantage.

**Cutter, Ephraim,** an American physician; born in Woburn, Mass., Sept. 1, 1832; graduated at Yale University in 1852; practised medicine in his native city till 1875, in Cambridge and Boston till 1881, when he removed to New York city and began

practice there. He invented a large number of surgical instruments.

**Cuttlefish,** a genus and family of cephalopodous mollusks, more commonly known as "devil fish." It has eight arms, provided with suckers, with which it catches its prey. It is much dreaded by mariners when in small boats.

**Cutty Stool,** a low stool, the stool of repentance, a seat formerly set apart in Presbyterian churches in Scotland, on which offenders against chastity were exhibited before the congregation and submitted to the minister's rebukes before they were readmitted to church privileges.

**Cuvier, Georges Chrétien Léopold Dagobert, Baron,** one of the greatest naturalists the world has produced; born in Montbeliard, France, Aug. 23, 1769. His "Animal Kingdom" has been frequently translated, and forms the basis of all arrangements followed at the present time. Cuvier filled many offices of great importance in the State; particularly those connected with educational institutions. He died in Paris, May 13, 1832.

**Cuyaba,** the capital of the Brazilian State of Matto Grosso, occupies pretty nearly the center of South America. It stands on the left bank of the Cuyaba river, 980 miles N. W. of Rio de Janeiro. Founded by gold-diggers in 1719, and wrecked by an earthquake in 1746, it is now a well-built place. Pop. 37,000.

**Cuyler, Theodore Ledyard,** clergyman and writer; born in Aurora, N. Y., Jan. 10, 1822, son of B. Ledyard and Louisa Frances (Morrell) Cuyler, graduated from Princeton in 1841, and from Princeton Theological Seminary in 1846; ordained to ministry in 1848. From 1860 to 1890 pastor of Lafayette Avenue Presbyterian Church, Brooklyn. Author of "God's Light on Dark Clouds," "Christianity in the Home," etc.

**Cuyp, or Kuyp, Jacob Gerritse,** a Dutch painter; commonly called the Old Cuyp; born in Dordrecht, Netherlands, in 1575. Jacob Cuyp's representation of cows, sheep, battles and encampments, are clever; but his fame rests principally on his excellent portraits. He died in Dordrecht in 1691. BENJAMIN CUYP, a nephew of Albert, was born in Dordrecht, in 1608, and became a member of the guild there in 1631. He painted Biblical pieces in Rembrandt's style, and familiar scenes of country life.

**Cuyuni,** a river of South America, rises in Venezuela, flows first N., then E. through British Guiana, and joins the Mazaruni just above the confluence of the latter with the Essequibo. It has numerous rapids and falls.

**Cuzco,** an inland city of Peru, capital of a department of same name, and formerly capital of the empire of the Incas, about 400 miles E. S. E. of Lima. According to tradition, this town was founded in 1043 by Manco Capac, the first Inca of Peru. The grandeur and magnificence of the edifices, of its fortress, and of the Temple of the Sun, struck the Spaniards with astonishment in 1534, when the city was taken by Francis Pizarro. On the hill toward the north are yet seen the ruins of a fortress built by the Incas, and which has a communication, by means of subterranean passages, with three forts built in the walls of Cuzco. All the descendants of the Incas resided in a particular quarter of the city.

**Cyanosis,** the blue disease; the blue jaundice of the ancients. It is usually due to malformation of the heart, whereby the venous and arterial currents mingle.

**Cyanotype Process,** a photographic process in very common use by architects and engineers for copying plans, producing an image with white lines on a blue ground, commonly known as "blue prints."

**Cyathea,** a genus of tree ferns, extensive and widely spread, having representatives in South America, in Mexico, South Africa, India, China, and the eastern islands of those of the Pacific. The common tree-fern is the typical species. It is found in the West Indies and in the warmer parts of the American continent.

**Cybele,** also AGDISTIS and DINDYMENE, an ancient goddess whose worship was universal in Phrygia, and widely spread in Western Asia as that of "the great mother" or "the mother of the gods." The Roman priests of Cybele were often called Galli. In

art Cybele is usually represented seated on a throne, adorned with the mural crown, with lions crouching to the right or left, or sitting in a car drawn by lions.

**Cyclades,** the principal group of islands in the Grecian Archipelago now belonging to the Kingdom of Greece, so named from lying round the sacred island of Delos in a circle. They are of volcanic formation and generally mountainous. Some are very fertile, others almost sterile. The inhabitants are excellent sailors. Population (1907) 130,378.

**Cycle,** a circle; is used for every uniformly returning succession of the same events. On such successions or cycles of years rests all chronology, particularly the calendar.

**Cyclometer,** an invention for measuring and recording the distance traveled by wheeled vehicles, extensively used in cycling. Its most important application is in railroading. The apparatus is connected with the wheels of a car, and by recording the number of revolutions tells the number of miles traveled. It is purely automatic, and in addition, by an attachment of extreme ingenuity, every inequality in the roadbed of a railroad is detected and located.

**Cyclone,** a circular or rotary storm or system of winds, varying from 50 to 500 miles in diameter, revolving round a center, which advances at a rate that may be as high as 40 miles an hour, and toward which the winds tend. Cyclones of greatest violence occur within the tropics, and they revolve in opposite directions in the two hemispheres — in the southern with, and in the northern against, the hands of a watch — in consequence of which, and the progression of the center, the strength of the storm in the northern hemisphere is greater on the S. of the line of progression, the case being reversed in the southern hemisphere. An anticyclone is a storm of opposite character, the general tendency of the winds in it being away from the center while it also shifts within comparatively small limits. Cyclones are preceded by a singular calm and a great fall of the barometer. The western States are visited at times by destructive cyclones.

**Cyclopædia,** or **Encyclopædia,** in modern usage a work professing to give information in regard to the whole circle of human knowledge, or in regard to everything included within some particular scientific or conventional division of it.

**Cyclopean Architecture,** a wall of large, irregular stones, unhewn and uncemented. In Greece such walls were fabled to be the work of the Cyclopes, or one-eyed giants. The walls of Tiryns, near Nauplia are an example of the ruder style of Cyclopean masonry. They are of irregular stones, from 6 to 9 feet long, from 3 to 4 feet wide, and from 2 to 3 feet thick; the interstices are filled up by small stones, but no mortar is used. The walls of Mycenæ and of Epirus are examples of more advanced Cyclopean architecture. These structures are commonly believed to have been reared by a race called Pelasgians, probably more than 1,000 years before the Christian era. Masonry partaking more or less of the Cyclopean character is seen in some parts of America, in Persepolis, and elsewhere in Asia, and in several parts of W. Europe. The walls of Cuzco, and the ruins of what is called the House of Manco Capac, on an island in the lake of Titicaca, in Peru, are interesting examples of the Cyclopean architecture of the New World.

**Cyclops,** one of the people called cyclopes, alleged to be a savage race of one-eyed giants, resident in Sicily. They owned no social ties and were ignorant of cultivation.

**Cyclorama,** a painted conspectus of a scene, so arranged as to afford the eye a single comprehensive view. Battles have been thus presented in the United States in the form of circular panoramas.

**Cyclosis** (a surrounding, a circulation), the name designating certain still very imperfectly understood movements of the contents or cells in plants — formerly supposed to be a partial circulation of the juices. As they have been observed in plants of the most different natural orders, it is presumed that they prevail throughout the vegetable kingdom.

**Cydias,** a painter; born in the island of Cynthus, one of the Cyclades,

and who flourished Olympiad 104. Hortensius, the orator, purchased his painting of the Argonauts for 144,000 sesterces (nearly $5,600)). This piece was afterward transferred by Agrippa to the portico of Neptune.

**Cygnus,** (the Swan), a large Northern constellation in the Milky Way, one of Ptolemy's original 48.

**Cylinder,** a solid whose cross-section at any point of its length gives always the same circle.

**Cymbals,** musical instruments consisting of two hollow basins of brass, which emit a ringing sound when struck together. They are military instruments, but are occasionally used in orchestras.

**Cymbeline,** an ancient King of Great Britain in a well-known play of Shakespeare called by his name. By his first wife he had a daughter, Imogen, who married Posthumus Leonatus. His second wife had, by a former husband, a son named Cloten. Shakespeare borrowed the name from the half-historical Cunobelinus in Holinshed's "Chronicle," of whom several coins are extant.

**Cymri,** a branch of the Celtic family of nations which appears to have succeeded the Gaels in the great migration of the Celts W., and to have driven the Gaelic branch into Ireland and the Isle of Man, and the Highlands of Scotland, while they themselves occupied the S. parts of Great Britain. At a later period they were themselves driven out of the Lowlands of Great Britain by the invasions of the Angles, Saxons, and Jutes, and compelled to take refuge in the mountainous regions of Wales, Cornwall, and the N. W. of England. Wales may now be regarded as the chief seat of the Cymri.

**Cynewulf,** an Anglo-Saxon or early English poet, whose name we only know from its being given in runes in the poems attributed to him.

**Cynics,** a sect of philosophers among the Greeks, so called from their snarling humor, and their disregard of the conventional usages of society.

**Cypress,** a tall evergreen conifer, indigenous to Persia and the Levant, but found all over the adjacent regions, though not to any extent in India. It is planted in burial grounds, especially in those of the Mohammedans and of the Armenians. The modern Romans admit it into their private gardens. The Greeks made their coffins of its wood, and some Egyptian mummy chests are of the same material. It is used in Candia, Malta, and other places for building purposes. The doors of St. Peter's at Rome are formed of it, and have lasted 1,100 years. The gates of Constantinople, also built of it, continued the same length of time. Cabinet-makers and wood turners find it suitable for their respective crafts.

**Cyprian, St., Thascius Cæcilius,** was probably a native of Carthage, taught rhetoric there, and about 246, when nearly 50 years of age, was converted to the Christian faith. He was soon after chosen presbyter, adopted a rigidly ascetic manner of life, and was appointed Bishop of Carthage in 248. When the persecution under Decius fell on the Churches, Cyprian ran away and concealed himself for nearly two years. He was then received as bishop again, but during the next persecution, under Valerianus, he was arrested and banished. After a year he was recalled, but as he refused to make the required sacrifice to the gods, he was put to death, 258.

**Cyprus,** an island lying on the S. of Asia Minor, and the most easterly in the Mediterranean. Its greatest length is 145 miles, maximum breadth about 60 miles; area, 3,678 square miles. The chief features of its surface are two mountain ranges, both stretching E. and W., the one running close to the N. shore, and extending through the long N. E. horn or prolongation of the island, the other and more massive (Mount Olympus) occupying a great part of the S. of the island, and rising in Troodos to 6,590 feet. Between them is the bare and mostly uncultivated plain called Messaria. There is a deficiency of water. The climate is, in general, healthy. The mountains are covered with forests of excellent timber, and the island is esteemed one of the richest and most fertile in the Levant. Agriculture is in a very backward state, and locusts sometimes cause great damage.

In 1878 Cyprus was ceded to Great Britain by the convention of Constantinople concluded between England and Turkey, its reversion to Turkey being provided if Russia should give up Batoum and Kars. Great Britain was also bound to pay a subsidy to Turkey annually amounting to about $465,000, but this is not paid directly, being retained as an offset against British claims on Turkey. The island has become much more prosperous under British administration, and was formally annexed to Great Britain Nov. 5, 1914. There are six administrative districts. Pop. (1921) 310,700; capital, Nicosia, pop. 18,461.

**Cyrene,** old capital of Cyrenaica, was founded by Battus and his followers from Thera, B. C. 631. Seven kings of this race succeeded, and about B. C. 450 a republic was established. It was afterward made subject to Egypt, and passed under the dominion of Rome, B. C. 74. In 1911 Cyrenaica with Tripoli was annexed by Italy and the two territories were organized as the province of Libia Italiana in 1915; capital, Cyrenaica, Bengazi.

**Cyrenius,** a Grecized form of Publius Sulpicius Quirinus, named in Luke ii. as governor of Syria.

**Cyrus,** surnamed THE ELDER, founder of the Persian monarchy, was son of Cambyses, a Persian noble, and of Mandane, daughter of Astyages, king of Media. The principal exploits attributed to him are the incitement to a revolt of the Persians, and consequent defeat of Astyages and the Medes, when he became king, B. C. 559; the conquest of Lydia and capture of Crœsus; the siege and capture of Babylon in 538, and the invasion of Scythia, where he was defeated and slain by Tomyris, queen of the Massagetæ, 529. He was interred at Psargardæ, and his tomb was visited by Alexander the Great.

**Cyst** (a bladder), a word sometimes used in the original sense as applied to hollow organs with thin walls, as the urinary bladder and gall-bladder; but commonly reserved for the designation of pathological structures or new formations within the body having the bladder form.

**Cystitis,** inflammation of the bladder.

**Cytherea** (from Cytherea, a name for Venus, so called because she is said to have sprung from the foam of the sea near Cythera, now Cerigo, an island on the S. E. of the Morea), a genus of conchiferous mollusks. They are found in all seas.

**Cytisus,** a genus of plants. The members of the genus are shrubs or small trees, sometimes spiny, with leaves composed of three leaflets, and with yellow, purple, or white flowers. They are very ornamental plants. The best known species is the common laburnum.

**Cyzicus,** a peninsula of Asia Minor, 60 miles S. W. of Constantinople. It was once an island, and the site of an ancient town of the same name.

**Czajkovski, Michal,** a Polish novelist; born in Helczyniec, Russia, in 1808. He entered the Turkish army in 1851, embraced Mohammedanism, and rose to high rank; later he went back to the Ukraine and conformed to the Russo-Greek religion. He struck a new and original vein in fiction-writing. He died in 1876.

**Czar,** a king; the title of the Emperors of Russia; employed in Russia itself, in the form of tsar. It was first assumed by Ivan II. in 1579.

**Czarevna,** the title of the wife of the czarowitz.

**Czarina,** the wife of the Emperor of Russia.

**Czarowitz, Czarevitch,** or **Czarewitch,** the title of the oldest son of the Emperor of Russia.

**Czartoryski, Adam, Prince,** a prominent actor in the Polish revolution of 1830; born at Warsaw in 1770. When the revolution of 1830 broke out, he devoted all his energies to the service of his country. As president of the provisional government, he summoned the Diet to meet in December, 1830, and in the following month was placed at the head of the national government. He resigned his post after the terrible days of Aug. 15 and 16, and served as a common soldier during the last fruitless struggle. He was excluded from the amnesty of 1831, and his estates in Poland confiscated. His latter years were spent in Paris, where he died in 1861.

**Czecho-Slovakia,** a central European republic about the size of Illinois and bounded on north by Germany and Poland and on south by Austria, Roumania and Hungary. It is one of Europe's richest countries agriculturally. Its area is 54,877 miles divided as follows: Bohemia, 20,333; Moravia and Silesia, 10,438; Slovakia, 19,148; Carpathian Russia, 4,958. Population, (1921) 13,613,172. Capital, Prague. Pop. (1921) 676,666; other cities, Brunn, 221,758; Pilsen, 88,416; Pressburg, 93,189; Olomane, 57,206; Kosice, 52,864. President, Thomas G. Massaryk, reëlected 1920. In 1923 the number of farms was 3,791,621, the country being almost exclusively a land of peasant holdings. In the same year 17,117,322 metric tons of wheat, oats, barley, rye, potatoes and sugar beets were raised.

**Czenstochau, or Czenstochowa,** a town of Poland, 148 miles S. W. of Warsaw by rail. A Catholic monastery, founded here about 1382, is visited yearly by 50,000 to 60,000 pilgrims, as possessing the famous "Black Virgin," a murky painting of Byzantine origin, but ascribed by legend to St. Luke himself. In 1655 Czenstochau was the only place in Poland which offered resistance to Charles Gustavus of Sweden, when 70 monks and 150 soldiers for 38 days held out against 10,000 men.

**Czernowitz,** the extreme eastern city of Roumania; capital of the province of Bukowina; on the right bank of the Pruth river; 164 miles S. E. of Lemberg, 420 miles E. of Vienna. Local industries consist chiefly of corn milling and brewing, though in recent years an impetus has been given to manufacturing, and to trade, the latter especially in farm products, cattle, and wool. The notable buildings include the palace of a Greek archbishop, his cathedral, an Armenian church, and a synagogue. The city may be said to have been almost constantly under fire or siege during the World War. It was occupied by the Russians, Oct. 30, 1914, and again June 17, 1916. Pop. (Est.) 94,500. See APPENDIX: *World War.*

**Czerny, George,** Hospodar of Servia; born in the neighborhood of Belgrade about 1770. His real name was George Petrovitch, but he was called Czerny or Kara George (Black George). He was the son of a peasant and in his youth, having killed a Turk, was obliged to flee to Austria. While serving in the Austrian army he fought the Turks for two or three years, but left the service to become a bandit, confining his robberies, however, to the property of Moslems. When the country became disturbed by the depredations of the Janizaries he became leader of a Servian uprising. Encouraged by the countenance of Russia, the revolt became formidable and Czerny George won several victories. In 1806 the Sublime Porte acknowledged the independence of Servia, continuing, however, to demand tribute. This show of sovereignty irritated the Servians and Black George attacked and captured both Belgrade and Schabaz, the Turkish inhabitants and the Janizary forces being massacred. The successful commander-in-chief of the Servians was now looked on as the real ruler of his country.

War broke out between Russia and Turkey in 1809. Czerny George took sides against Turkey, hoping to achieve the deliverance of all the Slavs under Turkish dominion. When the Sultan's troops invaded the soil of Servia, its chief was forced to turn to Russia for assistance. The treaty of 1812 disappointed his hopes by placing Servia under Moslem control, and when the Turkish army re-entered Servia, Czerny George fled again to Austria. After an exile of four years he returned in the hope of arousing a successful insurrection, but was assassinated July 27, 1817, by a Servian officer.

**Czerny, Karl,** an Austrian pianist and musical composer; born in Vienna, Feb. 21, 1791. Among his pupils were Liszt, Thalberg, and other distinguished musicians. He died July 15, 1857.

**Czuczor, Gergely,** a Hungarian poet and philologist; born in Andod, Dec. 17, 1800. His two fine hero-ballads, "The Battle of Augsburg," and "The Diet of Arad," brought him instant celebrity. In 1848 he published "Réveil," a passionate appeal to Hungarian national sentiment, and was imprisoned for it. He died in Pesth Sept. 9, 1866.


CZECHOSLOVAKIA, AUSTRIA, HUNGARY AND NORTHERN YUGOSLAVIA
Scale of Miles
0 25 50 75 100 125
Railroads
Canals
Submarine Telegraph Lines
Capitals
Size of type indicates relative importance of places
C.S.HAMMOND & CO., N.Y.
Prague
Vienna
BUDAPEST
Trieste
Venice
Lemberg
Czernowitz
Szegedin
Belgrade
Sarajevo
Bukharest
Sofia
BULGARIA
Balkan Mts.
ADRIATIC SEA
TRANSYLVANIAN ALPS
BOSNIA
HERZEGOVINA
SERVIA
CROATIA SLAVONIA
HUNGARY
AUSTRIA
BUKOWINA
GALICIA
CARPATHIAN MTS.
Danube R.
Elbe R.
Oder R.
Vistula R.
Dniester R.
Pruth R.
Save R.
Drave R.
Theiss R.
Tiber R.
Po R.
Adige R.
Main R.
Rhine R.
Inn R.
Lake of Constance
Lake Garda
Gulf of Venice
Dresden
Nuremberg
Munich
Augsburg
Ulm
Ratisbon
Passau
Linz
Salzburg
Innsbruck
Kufstein
Kempten
Coburg
Bayreuth
Fulda
Aussig
Teplitz
Reichenberg
Pilsen
Budweis
Brunn
Olmutz
Pressburg
Raab
Kaschau
Debreczin
Grosswardein
Klausenburg
Hermanstadt
Kronstadt
Temesvar
Arad
Karlsburg
Agram
Laibach
Cilli
Marburg
Gratz
Klagenfurt
Villach
Brixen
Trient
Verona
Mantua
Brescia
Cremona
Padua
Venice
Udine
Riva
Roveredo
Ala
Feltre
Treviso
Belluno
Pola
Fiume
Zara
Spalato
Ragusa
Cattaro
Scutari
Durazzo
Ancona
Rimini
Ravenna
Bologna
Ferrara
Florence
Pisa
Leghorn
Arezzo
Siena
Perugia
Spoleto
Ascoli
Narni
Aquila
Pescara
Grosseto
Elba I.
Rovigno
Parma
Carrara
Pistoia
San Marino
Cagli
Fabriano
Sebenico
Zaravecchia
Lissa
Curzola
Meleda
Lesina
Brazza
Lussin
Cherso
Veglia
Gradiska
Brod
Essek
Peterwardein
Mitrowitz
Semlin
Belgrade
Nissa
Uskub
Monastir
Prizrend
Ipek
Novibazar
Mitrovitza
Plava
Cettinje
Scutari
Castelnuovo
Gravosa
Metkovic
Mostar
Foca
Serajevo
Zenica
Banjaluka
Bihac
Agram
Karlstadt
Warasdin
Kanizsa
Szegedin
Arad
Temesvar
Versecz
Weisskirchen
Orsova
Turnu Severin
Craiova
Pitesti
Ploiesti
Buzeu
Focsani
Galatz
Ibrail
Kimpolung
Jassy
Botoschani
Suczawa
Radautz
Kimpolung
Dorna Vatra
Bistritz
Bekas
Tergu Ocna
Mediasch
Schassburg
Blasendorf
Hatszeg
Petroseny
Lugos
Karansebes
Mehadia
Resicza
Versecz
Neusatz
Peterwardein
Illok
Ruma
Semlin
Panczova
Kovin
Pancsova
Temesvar
Nagy Kikinda
Becskerek
Zombor
Kula
Szabadka
Baja
Mohacs
Essek
Vukovar
Mitrowitz
Sabac
Valjevo
Palanka
Maidanpek
Negotin
Parachin
Vidin
Nissa
Kruchevatz
Lescovatz
Novibazar
Mitrovitza
Plava
Cettinje
Scutari
Durazzo
Uskub
Monastir
Prizrend
Ipek
Tachlidcha
Konjica
Rogatica
Zvornik
Sabac
Mitrowitz
Broka
Samac
Derbent
Dobej
Tesanj
Jajce
Bugojno
Livno
Kupres
Prozor
Imoski
Makarska
Nevesinje
Gacko
Metkovic
Bilek
Trebinje
Ragusa
Castelnuovo
Cattaro
Curzola
Lissa
Lesina
Brazza
Sebenico
Zaravecchia
Spalato
Dernis
Knin
Zara
Grossa
Melada
Unie
Lussin
Veglia
Cherso
Fiume
Ogulin
Zengg
Karlstadt
Agram



PARLIAMENT BUILDINGS, VIENNA, AUSTRIA

# D

**D,** the fourth letter in our alphabet, as also in the Latin and Greek, and in the Phœnician from which it passed to the Greeks, being ultimately of Egyptian origin. Among Roman numerals, D signifies 500, but was not used as a numerical designation till 1,500 years after Christ. If a line was marked over it, it signified 5,000.

**Daar, Ludvig,** a Norwegian statesman and historian; born in Aremark, near Frederikshald, Dec. 7, 1834. He was for 20 years an active member of the Storthing; was several times minister in the various Radical cabinets; and won several gold medals with his historical essays on ancient Norway. He died in Christiania in May, 1893.

**Dabaira,** an idol of the savages of Panama, to whose honor slaves are burnt to death.

**Dabis,** a colossal idol of brass worshiped in Japan.

**Dabney, Charles William,** an American consular officer; born in Alexandria, Va., March 19, 1794. He was made United States consul in the Azores in 1826. He died in Fayal, Azores, March 12, 1871.

**Dabney, Charles William,** an American scientist; born in Hampden-Sidney, Va., June 19, 1855. He graduated at Hampden-Sidney College in 1873. Four years later he became Professor of Chemistry in Henry and Emory College, and in 1880 was appointed state chemist of North Carolina. Since 1887 he has been president of the University of Tennessee.

**Dabney, Robert Lewis,** an author and Presbyterian clergyman born in Virginia March 5, 1820. From 1883 to his death in 1898 he filled the chair of moral philosophy in the University of Texas.

**Dabney, Virginius,** an American author; born in Elmington, Va., Feb. 15, 1835; died in 1894.

**Daboll, Nathan,** an American educator and writer; born about 1750. He is best known for his share in the "New England Almanac," which he began in 1773. He died in Groton, Conn., March 9, 1818.

**Daboll, Nathan,** an American writer; born in Connecticut, in 1782. He was son of the preceding, and compiled the "New England Almanac" begun by his father. He is the author of "Daboll's New Arithmetic." He died in 1863.

**Dace,** a small river fish swimming in shoals and inhabiting chiefly deep clear streams with a gentle current. It seldom exceeds a pound in weight.

**Dach, Simon,** a German lyrist; born in Memel, in 1605. His spiritual songs, "In Thy Control, O Lord," "Be Comforted, my Soul," etc., are hardly surpassed by any compositions of the day. He died in 1659.

**Dachshund,** a name adopted from the German, signifying "badger-dog." The dachshund is a small dog, weighing about 20 pounds, with short crooked fore-legs, and an extremely long body, its head rather resembling that of a miniature bloodhound. Its strong, large paws enable it to dig rapidly.

**Dacia,** a large tract of the Roman empire beyond the Danube; now comprising Moldavia, Wallachia, and portions of Transylvania and Hungary.

**Dacoits,** bands of robbers in the East, especially in Burma, India,

where for years they were the terror of the country.

**Da Costa, Izaak,** a Dutch poet and theologian; born in Amsterdam, Jan. 14, 1798. He died in Leyden, April 28, 1860.

**Da Costa, Jacob M.,** an American physician; born in St. Thomas, W. I., Feb. 7, 1833. He graduated at Jefferson Medical College, practising in Philadelphia. In 1863 he became Lecturer in Jefferson Medical College, in 1872 Professor of the Theory and Practice of Medicine there, and in 1891 Professor Emeritus. In 1895 he was chosen president of the College of Physicians and Surgeons in Philadelphia. He died in Villa Nova, Pa., Sept. 11, 1900.

**Daddy-long-legs,** or **Crane-fly,** a familiar insect. The body, the legs, and the antennæ are very long, the insect is toward an inch in length, is abundant from July to October in meadows and gardens and is familiar to everyone. The female is often seen laying her eggs in damp places on the ground.

**Dado,** in classical architecture, the middle part of a pedestal; the solid rectangular part between the plinth and the cornice. In the interior of houses it is applied to a skirting of wood several feet high round the lower part of the walls, or an imitation of this by paper or painting.

**Dædalus,** a figure in Greek mythology who personified the beginning of the arts of sculpture and architecture.

**Daffodil,** the popular name of a plant which is one of the earliest ornaments of our gardens, being favorite objects of cultivation.

**Daghestan,** a province of Russia, in the Caucasus, stretching along the W. side of the Caspian Sea; area, 11,471 square miles. Its fertile and tolerably cultivated valleys produce good crops of grain, and also silk, cotton, flax, tobacco, etc. The inhabitants, almost all professed Mohammedans, consist chiefly of races of Tartar origin and of Circassians. Capital, Derbend. Pop. (1921) 798,440.

**Dago,** an island belonging to Russia, to the S. W. of the entrance of the Gulf of Finland, with productive fisheries. The inhabitants, almost all Swedes, are about 10,000.

**Dagoba,** a Cingalese dome-shaped shrine containing relics, the worship of which is one of the principal characteristics of Buddhism. In a Buddhist temple, the dagoba is a structure which occupies the place of an altar in a Christian church; they are found also in Buddhist topes and tumuli. The word pagoda would appear to be a corruption of dagoba.

**Dagon,** a national god of the Philistines worshiped at Gaza and elsewhere. The word has by some been derived from dagan, meaning corn, but the general opinion is that it comes from dag, a fish, and that Dagon was the fish-god. Probably he had the head and hands of a man with the body and tail of a fish. The temple of Dagon at Ashdod continued beyond the period of the Old Testament, but it was destroyed by Judas Maccabæus about 148 B. C.



DAFFODIL.

**Daguerre, Louis Jacques Mande,** a French inventor; born in Cormeilles, France, in 1789. He was at first a scene painter at Paris, and by his original devices soon took a front place in the art. While engaged in this way and in painting panoramic

views he discovered a method of representing moonlight, day, and night, changes of season, and so on, by the proper illumination of a large transparent canvas painted on both sides. The pictures were first exhibited in Paris in 1822, and shortly afterward in London. As early as 1814, Nicephore Niepce had directed his attention to photography, and in 1827 had delivered pictures on metal to the Royal Society. In 1826 he had been joined by Daguerre, and a formal agreement was made between them. Niepce died July 5, 1833, and had apparently given up the hope of succeeding with a plate sensitized by iodine. Daguerre persevered, and at length produced the method which has been since called daguerreotype. The process was examined and reported on by the French government, Daguerre was made an officer of the Legion of Honor, and an annuity of 6,000 francs was settled on him, and one of 4,000 on the son of Niepce. On July 10, 1851, he died in Petit-Brie, near Paris, where a monument has been erected to him. Daguerreotype process is now completely out of use, its place having been taken by other processes.

**Dagupan,** a town on the island of Luzon, in the Philippines, where the Lingayen river enters the gulf of the same name; on the railroad from Manila, and about 130 miles N. W. of that city. It was one of the strongholds of the Filipino insurgents and the point where most of the filibustering expeditions landed. Soon after hostilities between the United States and the insurgents opened the American military authorities were unanimous in the opinion that Dagupan should be made a base of operations, but sufficient troops were lacking till November, 1899, when an expedition left Manila for this place under command of General Wheaton. A landing from the transports, supported by a number of naval vessels, was made at Lingayen, a suburb of Dagupan, which has a sheltered harbor and had hastily constructed earth-works. The works and town were shelled, but there was no response from shore. As the American troops were being landed in steam launches a long line of insurgents suddenly appeared among the sand dunes and fired upon the troops. The Americans returned the fire, completed their landing, and drove the insurgents out of Dagupan, and then started on a march to the E. and S. in the expectation of surrounding Aguinaldo at Tarlac, about 50 miles to the S., where he had established his headquarters. Population 16,000.

**Dahabeah,** a boat in use on the Nile, for both freight and passenger traffic.

**Dahl, Konrad Neuman Hjelm,** a Norwegian story-teller; born in Drontheim, June 24, 1843. He is author of a series of stories and novels of Norwegian and Lapp life.

**Dahl, Michael,** a Swedish painter; born in Stockholm, Sweden, in 1658; died in London, Oct. 20, 1743.

**Dahlgren, Fredrik August,** a Swedish poet and dramatist; born in Nordmark, Aug. 20, 1816. His works include many dialect songs and ballads, a history of the Swedish stage, and translations of numerous dramas from foreign languages. He died in 1895.

**Dahlgren, John Adolphe,** an American naval officer; born in Philadelphia, Pa., Nov. 13, 1809; entered the navy as a midshipman in 1826, and rose through the grades to the rank of rear-admiral. He rendered efficient service in suppressing blockade-running during the Civil War. He invented the Dahlgren gun. He died in Washington, D. C., July 12, 1870.

**Dahlgren, Madeleine Vinton,** an American author; wife of Rear-Admiral Dahlgren; born in Gallipolis, O., about 1835. She died in Washington, D. C., May 28, 1898.

**Dahlgren, Ulric,** an American military and naval officer; born in Bucks Co., Pa., in 1842; son of Rear-Admiral Dahlgren. At the outbreak of the Civil War he became aide, first to his father and later to General Sigel, and was Sigel's chief of artillery at the second battle of Bull Run. He distinguished himself in an attack on Fredericksburg and at the battle of Chancellorsville, and on the retreat of the Confederates from Gettysburg he led the charge in Hagerstown. He lost his life in a raid undertaken for the purpose of releasing national prisoners at Libby prison and Belle Isle,

near King and Queen's Court-house, Va., March 4, 1864.

**Dahlgren Gun,** (named from Rear-Admiral John A. Dahlgren), a gun in which the front portion is materially lightened and the metal transferred to the rear, giving the "bottle-shape."

**Dahlia,** (so called after Andrew Dahl, a Swedish botanist and a pupil of Linnæus, by whom this beautiful garden plant was first brought into cultivation). The tree dahlia has of recent years been imported from Mexico. It attains a height of 12 to 14 feet. The genus was first carried over into Spain about 1787. A beautiful carmine is obtained from the corolla.

**Dahlmann, Friedrich Christoph,** a German historian; born in Wismar, May 13, 1785; was professor at Gottingen and afterward at Bonn. Among his principal works is a history of the English Revolution. He died in Bonn, Dec. 5, 1860.

**Dahn, Felix,** a German historian; born in Hamburg, Feb. 9, 1834. He was Professor of Jurisprudence successively in the universities of Munich, Wurtzburg, Konigsberg, and Breslau. Among his historical works is "The Kings of the Germans." He also wrote epic and lyric poems, remarkable for strong thought and verbal richness. He died Jan. 3, 1912.

**Dahomey,** (native name of the people, Dauma or Dahome), since 1892–1894 a French protectorate in Western Africa, between Lagos (British) and Togoland (formerly German), area about 4,000 square miles. The coast strip is not Dahomey proper, but, as the Slave Coast, is part of French Guinea. The long lagoon which, shut in from the ocean by a protecting bank of sand, affords an easy route along nearly the whole of this coast, extends in Dahomey from its W. frontier almost to the Denham lagoon in the E. About midway is the port of Whydah, whence a road extends inland to Abomey, a distance of 65 miles. The Avon and Denham lagoons receive the rivers of the country, none of which are very important. The soil is a rich, red-colored clay, and extremely fertile.

The people are negroes, of the Ewe group, generally of small stature, but very robust and active. They are sociable, equally fond of dancing and of rum, but warlike and prone to theft. The Dahomeyan kingdom dated from the beginning of the 18th century, and reached its zenith under Gezo, who ruled from about 1818 to 1858. Since then its power declined, and even its population has fallen off; but little reliance can be placed on the estimates of the numbers which range from 150,000 to 900,000. The army was 10,000 men; the Amazons (devoted to celibacy), who were distinguished for their bravery and ferocity, were about 1,000. Fetich-worship prevails, taking the form of serpent-worship along the coast; a temple with over a hundred of these sacred snakes exists at Whydah. The king was the most absolute of despots. Wholesale murder was one of the chief features in religious and state ceremonies. The revenue formerly depended greatly upon the sale of slaves; but the vigilance of the cruisers employed to prevent the traffic ruined the trade. The late king of Dahomey was for years a State prisoner and died in Algiers, Dec., 1906.

**Daiboth,** a Japanese idol of colossal size. Each of her hands is full of hands.

**Daikoku,** the god invoked specially the artisans of Japan.

**Daimio,** the official title of a class of feudal lords in Japan.

**Daimonogini,** a deity greatly venerated in Japan.

**Dainiz-no-Rai,** the Japanese sun-god.

**Dairy,** the department of a farm which is concerned with the production of milk and its manufacture into butter and cheese.

**Dais,** a platform or raised floor at the upper end of an ancient dining-hall, where the high table stood; also a seat with a high wainscot back, and sometimes with a canopy, for those who sat at the high table. The word is also applied to the high table.

**Daisy,** the name of well-known plants and flowers. Everyone feels the charm of this familiar little flower, nor is the appreciation confined to this country.

**Dakota,** or **Dakotah,** the name by which the Sioux Indians call themselves.



DAKOTA CHIEF.

**D'Albert, Eugen,** an Anglo-German pianist; born in Glasgow, Scotland, April 10, 1864. He visited the United States in 1889, and since 1895 has been royal pianist at the Court of Saxony.

**Dale, Richard,** an American naval officer; born in Norfolk, Va., Nov. 6, 1756; was sent to sea at 12 years of age, and at 19 had the command of a merchant-vessel. While serving as a midshipman on board of the American brig of war "Lexington," he was taken by a British cutter; but effected his escape into France, where he joined Paul Jones, then commanding the American ship "Bon Homme Richard," and was the first man that boarded the English frigate "Serapis," which was captured. In 1801 he had the command of an American squadron and hoisted his pennant on board the "President." He died in Philadelphia, Feb. 24, 1826.

**Dalecarlia, or Delarne,** a tract in Sweden, the name meaning "valley-land." Here Gustavus Vasa found a refuge from the Danes, and assembled the band of followers with whom he began the war of liberation.

**Dalgety,** a township in New South Wales, near the Victorian border, on the Snowy river, about 220 miles S. W. of Sydney, selected in 1905 as the site of the permanent capital of the Australian Commonwealth, the temporary seat of the Parliament being Melbourne.

**Dalin, Olof von,** "father of modern Swedish literature"; born in 1708; died in 1763.

**Dall, William Healey,** American naturalist; born in Boston, Mass., Aug. 21, 1845; is a member of the United States Geological Survey.

**Dallas,** a city and county-seat of Dallas Co., Texas. Pop. (1920) 158,976; (1925) Est., 193,450.

**Dallas, Alexander James,** an American statesman; born in the Island of Jamaica, June 21, 1759. He studied law in London and settled in Philadelphia in 1783. He became eminent at the bar, and was Secretary of the Treasury under Madison. He died in Trenton, N. J., Jan. 14, 1817.

**Dallas, George Mifflin,** an American diplomat; born in Philadelphia, Pa., July 10, 1792; son of the preceding. He graduated at Princeton College, was admitted to the bar, and soon after entered the diplomatic service. In 1831 he was elected a United States Senator from Pennsylvania. He was United States minister to Russia from 1837 to 1839, and in 1844 was elected Vice-President of the United States. In 1846 his casting-vote as President of the Senate repealed the protective tariff of 1842. He was United States minister to Great Britain from 1856 to 1861. He died in Philadelphia, Dec. 31, 1864.

**Dalles,** the name given to various rapids and cataracts in North America. The Great Dalles of the Columbia are about 200 miles from the mouth of that river; the Dalles of the

St. Louis are a series of cataracts near Duluth, Minn.

**Dalmatia,** a province of Jugo-Slavia. It with Serbia, Montenegro, Bosnia and Herzegovina, Croatia, Slovenia and Voyvodina form new Kingdom. It is a long narrow country with a number of large islands along the N. E. coasts of the Adriatic Sea, and bounded N. by Croatia and N. E. by Bosnia and Herzegovina. In breadth it is very limited, not exceeding 40 miles in any part; its whole area is 4,956 English square miles. The population is divided between the Italians of the coast towns and the peasants of the interior, Slovenian Slavs. The majority are Roman Catholics. Pop. (1920) 621,429.

**Dalmatian Dog,** a variety of dog closely resembling in size and shape the modern pointer. It is often kept in stables, becomes attached to the horses, and may be seen running after carriages.

**Dalmatic,** or **Dalmatica,** a long white gown with sleeves, worn by deacons in the Roman Catholic Church over the alb stole.

**Dalny** now Dairen, a free port of Manchuria, situated on the Liao-tung Peninsula, and on Ta-lien-wan bay in the Yellow Sea, 25 miles N. of Port Arthur. Dalny is one of the eastern termini of the Trans-Siberian Railway, and was part of the leased concession of 1898 from China to Russia, after the latter with Germany and France, had coerced Japan to accept other territory than the peninsula which they had captured during the Chinese War of 1894-95. The city was established expressly for a commercial seaport by an edict of the Czar of Russia, and was thrown open to the commerce of all nations, Dec. 1, 1901. It was divided into administrative, wholesale, retail, and residential sections, and a fine town with spacious streets, handsome buildings, and all modern inprovements soon sprang up. The harbor, one of the best and deepest on the Pacific, ice-free all the year round, was provided with breakwaters, great stone piers, and extensive docks, including two dry docks. It was furnished with railroads, elevators, warehouses, gas and electric lighting, etc. After the brilliant storming and capture of Kin-chau, May 26, 1904 in the Russo-Japanese War, the Japanese occupied the city, renamed it Dairen, and opened it to the world's trade. Pop. (1919) 108,228.

**Dalrymple, Sir David,** (better known as Lord Hailes), a Scotch lawyer and antiquary; born in Edinburgh, Oct. 27, 1726. He published numerous works on Scotch history, antiquities, etc.; died Nov. 29, 1792.

**Dalton, John Call,** an American physiologist; born in Chelmsford, Mass., Feb. 2, 1825. He graduated at Harvard and at Harvard Medical School. He was successively Professor of Physiology at the University of Buffalo, at the Vermont Medical School, at the Long Island College Hospital, and at the New York College of Physicians and Surgeons. He served as an army surgeon throughout the Civil War. He died in New York city, Feb. 11, 1889.

**Daly, Charles Patrick,** an American jurist and author; born in New York city, Oct. 31, 1816; had a distinguished judicial career in his native city, retiring on account of age in 1886. He was president of the American Geographical Society for many years prior to his death, Sept. 19, 1899.

**Daly, (John) Augustin,** an American dramatist, and proprietor of Daly's Theater, New York; born in Plymouth, N. C., July 20, 1838. He died in Paris, June 7, 1899.

**Dalyell,** or **Dalzell, Thomas,** a Scotch soldier; born about 1599. He was taken prisoner fighting on the royalist side at Worcester, and afterwards escaped to Russia, where he was made a general. Returning to England at the Restoration, he was made commander-in-chief of the forces in Scotland, and made himself notorious for his ferocity against the Covenanters. He died in 1685.

**Dam,** a bank or construction of stone, earth, or wood across a stream for the purpose of keeping back the current to give it increased head, for holding back supplies of water, for flooding lands, or for rendering the stream above the dam navigable by increased depth.

**Damaraland,** a territory in the W. of South Africa, between Nama-

qualand and Ovampoland proper extending from the Atlantic to about 19° 45′ E. lon. Behind the waterless coast region rises a mountain district, with peaks over 8,500 feet above the sea. The mountains are rich in minerals, and vegetation is confined to the valleys and to the prairie region. The Damaras number about 80,000. In 1884 the desert region along the coast was made a German protectorate under the name of Deutsch-Damaraland, and on July 15, 1915, the whole of German South-West Africa was conquered by Gen. Botha for England.

**Damascus,** a celebrated city, capital of Syria, now mandate of France; finely situated on a plain, about 180 miles S. by W. Aleppo; supposed to be the most ancient city in the world. It is 6 miles in circumference, and is surrounded by a dilapidated wall. The plain on which the city stands is of great extent, and is covered with the most beautiful gardens and orchards, irrigated by the limpid waters of the Barrada, forming a waving grove of more than 50 miles in circuit. The interior of Damascus by no means corresponds with the beauty of its environs. The streets are narrow and crooked, and have a gloomy and dilapidated appearance. In most parts of the city the fronts of the houses are built with mud, and pierced by a very few small grated windows. Interiorly they are of a quadrangular form, inclosing a court paved with marble, ornamented with beautiful trees and flowering bushes, and having copious fountains playing in the center.

Among the places most worthy of notice in Damascus are the bazaars. They are merely long streets covered with high woodwork, and lined with shops, stalls, magazines, and cafes.

In the midst of the bazaars is the Great Khan, said to be one of the most magnificent structures of its kind. It is an immense cupola supported on granite pillars and built in part of alternate layers of black and white marble. Its gate is one of the finest specimens of Moorish architecture to be seen in the world. In this building, and in 30 inferior khans, purchases and sales are daily conducted by the merchants who have their counting-houses near them. The principal mosque, a fine edifice, was destroyed by fire Oct. 14, 1893. The most interesting locality in the city is what is called "Straight Street," mentioned in connection with the conversion of the apostle Paul. It is the most important and capacious street in Damascus. The house of Judas, also, to which Ananias went, is still pointed out, as well as that of Ananias himself.

Damascus was formerly a great emporium of trade between Europe and the East. It is one of the holy cities, and here the pilgrims assemble on their journey to, and separate on their return from Mecca. Till a very recent period no Christian could walk the streets without incurring the risk of being insulted and probably maltreated by its fanatical population.

Damascus continues to be the most thoroughly Oriental city in all its features and characteristics of any city in existence. Of its origin nothing certain is known. There is, however, abundant evidence of its great antiquity, as it is mentioned in Gen. xiv: 15, as existing 1,913 years B. C. and appears even then to have been a place of note. A railway has been constructed from Beyrout, as also one running from Damascus to the Hauran. Pop. estimated at 300,000. See APPENDIX: *World War.*

**Damascus Blade,** a sword originally manufactured at Damascus and celebrated for the excellence of the quality of its steel.

**Damask,** a rich silk stuff originally made at Damascus. It has raised figures in various patterns, upon a white or colored ground. The work was probably of the nature of embroidery in the first place, but the figures were afterward exhibited on the surface by a peculiar arrangement of the loom.

Also a woven fabric of linen, extensively used for table-cloths, fine toweling, napkins, etc.

**Damaskeen,** or **Damasken,** to ornament one metal by another by inlaying or incrustation.

**Dames of the Revolution,** an American society organized in 1896, and composed of women above the age of 18 years, who are descended in their own right from an ancestor who assisted in establishing American in-

dependence during the War of the Revolution.

**Damianists,** a religious sect, disciples of Damian, Bishop of Alexandria, in the 6th century.

**Damien, Father,** (JOSEPH DAMIEN), a Belgian priest; born in Louvain, Jan. 3, 1841; in 1873 devoted himself to the awful duties of spiritual guide to the lepers confined to the Hawaiian island of Molokai. Sent on a mission to Honolulu, where on learning the neglected state of the lepers, he volunteered to establish himself among them; and from 1877 onward became physician of their souls and bodies. In 1885 the malady appeared in him; yet he continued unabated his heroic labors till near his death, April 10, 1889.

**Damietta,** a town of Lower Egypt, in the province of Dagahlia, on the right bank of the chief E. mouth of the Nile. It is the terminus of a branch railway from Cairo. The cambric known as dimity received its name from Damietta, where it was first manufactured. Pop. 35,407. The existing town was erected after 1251, but, prior to that, a city of the same name (more anciently Tamiathis) stood more to the S.

**Damocles,** a sycophant at the court of Dionysius of Syracuse in the 4th century B. C. When he was one day extolling the happy condition of princes, the tyrant invited him to a sumptuous entertainment, but caused a naked sword to be suspended over his head by a single hair; a sufficiently significant symbol of the fear in which tyrants may live.

**Damon,** a Pythagorean philosopher, memorable for his friendship with Pythias, or Phintias. Dionysius of Syracuse having condemned Damon to death, he obtained leave of absence to go home and settle his affairs, Pythias pledging himself to endure the punishment in his stead if he did not return at the appointed time. Damon was punctual; and this instance of friendship so pleased the king that he pardoned him, and begged, but in vain, to be admitted to their friendship.

**Dampier, William,** an English navigator; born in Somersetshire, in 1652. During many years of active service in privateers and trading-vessels, he several times visited the South seas. He died in 1712, but the exact time is not known.

**Damrosch, Leopold,** a German musician; born in Posen, Prussia, Oct. 22, 1832; graduated from the University of Berlin, and began the practice of medicine; but his love for music predominated, and he gave up his profession and started on a tour as violinist. He met with great success. Coming to the United States, he was made leader of the Arion Society in New York, and subsequently founded the Oratorio and Symphony societies of that city. In 1881 Dr. Damrosch conducted, in the Seventh Regiment Armory, the finest musical festival ever held in New York. Died Feb. 15, 1885.

**Damrosch, Walter,** a German musician; born in Breslau, Prussia, in 1862; son of Dr. Leopold Damrosch. He has been a citizen of the United States since 1871. He inherited the musical talent of his father, and succeeded him in his enterprises. He married in 1890 Miss Margaret, daughter of James G. Blaine.

**Damson,** a variety of the common plum from Damascus.

**Dan,** one of the sons of Jacob by his concubine Bilhah. At the time of the exodus the Danites numbered 62,700 adult males, being then the second tribe in point of numbers. Samson was a member of this tribe.

**Dana, Charles Anderson,** an American journalist; born in Hinsdale, N. H., Aug. 8, 1819. He entered Harvard in 1839, but did not graduate. From 1844 to 1847 he edited "The Harbinger." In 1847 he became managing editor of New York "Tribune" with which he remained until 1861. From 1862 to 1865 he was in the service of the United States government, during the last two years as Assistant Secretary of War under President Lincoln. About the beginning of 1866 he became editor of the Chicago "Republican," a daily paper. In 1867 Mr. Dana, with several associates, purchased the New York Sun, which achieved great success under his editorship. He died Oct. 17, 1897.

**Dana, Francis,** an American jurist; born in Charlestown, Mass., in 1743; graduated at Harvard, and admitted to the bar. In 1775 he was sent

to Europe on a confidential mission to Benjamin Franklin. He returned the next year and reported to General Washington that the colonies need expect nothing of Great Britain. In 1777 he was elected a member of the Congress that formed the Confederation, and filled various offices during the Revolutionary War. In 1781 he was made minister to Russia, and after his return was elected to Congress. In November, 1791, he was appointed Chief-justice of Massachusetts. He spent his declining years in retirement, and died April 25, 1811.

**Dana, James Dwight,** an American scientist; born in Utica, N. Y., Feb. 12, 1813. His researches into geology made him famous. He died in New Haven, April 14, 1895.

**Dana, Richard Henry,** the Elder, an American poet and essayist; born in Cambridge, Mass., Nov. 15, 1787. He studied at Harvard College, and was admitted to the Massachusetts bar. He was connected with the "North American Review" from its commencement, and his earliest writings first appeared in that periodical. He died Feb. 2, 1879.

**Dana, Richard Henry, Jr.,** an American lawyer and author; born in Cambridge, Mass., Aug. 1, 1815. He entered Harvard College, but being compelled by an affection of the eyes to suspend his studies, made a voyage to California as a common sailor. Returning to college he completed his law course, and was admitted to the Boston bar, soon securing a large number of admiralty cases. In 1859–1860 he made a voyage round the world, visiting the Sandwich Islands, China, Japan, Ceylon, India, and Egypt. In 1861 he was appointed United States attorney for Massachusetts, and was counsel for the United States in the proceedings against Jefferson Davis for treason, in 1867–1868. He died in Rome, Italy, Jan. 7, 1882.

**Danaides,** the 50 daughters of Danaus, King of Argos. Ægyptus, King of Egypt, their uncle, who had 50 sons, desired them to marry their cousins, but the Danaides, warned by an oracle, opposed this marriage. Ægyptus sent his sons to Argos, backed by a powerful army, in order to enforce his wishes. Danaus, being too weak to resist, consented to the marriage, but concerted with his daughters that they should kill their husbands on the night of their nuptials. This horrible project was executed, Lynceus alone escaping through the mercy of his bride, Hypermnestra. In order to punish these murderous wives, Jupiter cast them into Tartarus, and condemned them to fill eternally with water a vessel full of holes.

**Danakil,** the Arabic and general name for the numerous nomad and fisher tribes inhabiting the coast of N. E. Africa. They belong to the Ethiopic Hamites.

**Danbury,** a city and one of the county-seats of Fairfield Co., Conn.; 62 miles N. E. of New York. It is the greatest hat-making city in the United States, with nearly 30 concerns in operation. In 1776 the place was made a depository for army stores, and when General Tryon, the Britsh governor of New York, was informed of the fact he headed a force of over 2,000 men, landed at Norwalk, marched immediately upon Danbury, and set fire to the town. Pop. (1920) 18,943.

**Dance of Death,** an allegorical representation of the power of death over all ages and ranks.

**Dancing,** a form of exercise or amusement in which one or more persons make a series of graceful movements in measured steps in accord with music. The art of dancing dates back to the early Egyptians, who ascribe that invention to their god Thoth. Among the ancient Jews, Miriam danced to a sound of trumpets, itself an act of worship, and David danced in procession before the Ark of God. Religious processions went with song and dance to the temples; the Cretan chorus moving in measured pace sang hymns to the Greek god Apollo, and one of the Muses (Terpsichore) was the especial patroness of the art.

**Dancing Mania,** a habit accompanied by aberration of mind and distortions of the body, very prevalent in Germany in 1374, and in the 16th century in Italy.

**Dandelion,** a common and well-known plant. The blanched leaves have been recommended as a winter

salad, and the young leaves are a favorite "greens" in New England.

**Dandolo,** a patrician family of Venice, which traced its origin to the Roman era.

DANDOLO, ENRICO, Doge of Venice, to which high office he was chosen in 1192, when in his 87th year. He carried on the war with the Pisans and closed it by an advantageous peace. In 1201 the Crusaders applied to him for assistance, and on their promise to reduce the town of Zara, which had revolted, he agreed to help them. He accordingly undertook with them, in 1203, the siege of Constantinople, at which he greatly distinguished himself, and was the first who leaped on shore. He was created despot of Rumania, and died 1203, at the age of 97.

**Danegelt,** or **Danegeld,** originally a tax or tribute in England for the purpose of raising and maintaining forces to protect the coasts from the plundering attacks of the Danes.

**Danehower, John Wilson,** an American Arctic explorer; born in Chicago, Ill., Sept. 30, 1849. He graduated at the United States Naval Academy in 1870, and took part in a surveying expedition to the Northern Pacific. In 1873 he was at Honolulu, helping to quell an insurrection; and was one of the officers in charge of the "Vandalia" during General Grant's visit to Egypt and the Levant. He joined the "Jeannette" expedition for the Arctic Ocean. The vessel was lost in the ice and the crew after dragging their boats over the frozen deep for 95 days, reached the open sea. Lieutenant Danenhower arrived in the United States in June, 1882. He wrote "'The Narrative of the Jeannette." He died in Annapolis, April 20, 1887.

**Danes,** the natives of Denmark. The first mention of them was early in the 6th century, when they were living on the W. coast of the Cimbrian peninsula, whither they had gone from Scandinavia. Their literature dates from the 13th century, but ancient runic inscriptions in the old Danish language have been found which date from the Viking age (700–1050).

**Dane, The Great,** one of the breed of large close-haired dogs, originating in Denmark.

**Daniel,** the prophet, a contemporary of Ezekiel; was born of a distinguished Hebrew family. In his youth, 605 B. C., he was carried captive to Babylon, and educated in the Babylonish court for the service of King Nebuchadnezzar. Thrown into the lion's den for conscientiously refusing to obey the king, he was miraculously preserved, and finally made prime-minister in the court of the Persian King Darius. He ranks with what are called the "greater prophets." The book of the Old Testament which bears his name is divided into a historical and a prophetic part. Modern criticism generally regards it as written during the oppression of the Jews under Antiochus, about 170 B. C. It is partly in Chaldee.

**Daniels, Josephus,** an American executive; born in Washington, N. C., May 18, 1862; acquired an academic education; entered journalism in 1880; was admitted to the bar in 1885; North Carolina State printer in 1887–93; chief clerk, Department of the Interior, 1893–95; resumed journalism in Raleigh, N. C., becoming editor of several newspapers in turn; member of the Democratic National Executive Committee since 1895; trustee of the University of North Carolina, became Secretary of the Navy in President Wilson's Cabinet, March 5, 1913. After the entrance of the United States into the World War (April 6, 1917), he became a member of several committees on war measures.

**Daniels, Winthrop More,** professor of political economy at Princeton; born, Dayton, O., Sept. 30, 1867.

**Danish West Indies,** former name of the group of islands comprising St. Croix, St. John, and St. Thomas, lying off the E. coast of Porto Rico, and belonging to Denmark till March 31, 1917, when the United States acquired them by purchase, the cash price being $25,000,000, and renamed them the Virgin Islands of the United States. In 1902 the United States offered $3,240,000 for the islands, but the Danish Upper House rejected the treaty to sell. For details of the islands see WEST INDIES, DANISH.

**Dannecker, Johann Heinrich von,** a German sculptor; born in Waldenbuch, Oct. 15, 1758. His parents

were in the humblest circumstances, but he received a good education at the military academy at Ludwigsburg. The Duke of Wurtemberg appointed him Professor of Sculpture in the Academy of Stuttgart, in which city he resided till his death, Dec. 8, 1841.

**Dannemora,** a village on a lake of the same name, 24 miles N. N. E. of Upsala, in Sweden, celebrated for its iron-mines, the second richest in Sweden, which produce the finest iron in the world. Also a town of New York State, where a state prison is situated. Here on Oct. 1, 1903, occurred the execution of three brothers named Van Wormer, ranging from twenty to twenty-six years of age for the murder of an uncle whom they shot in his home.

**D'Annunzio, Gabriele,** an Italian novelist and poet; born at sea in 1864. He studied law in Pisa, but in 1885 took up literature. He wrote "Italy" and other poems, besides novels of pessimist tendency. "The Triumph of Death," published 1895, won him international fame. In 1899 he was elected to the Italian Chamber of Deputies.

**Dante,** (a contraction of Durante), **Alighieri,** an Italian poet; born in Florence about the end of May, 1265. He died Sept. 13 or 14, 1321. He is famous as the author of "The Divina Commedia," containing awful word pictures of hell.

**Danton, George Jacques,** a French revolutionist; born in Arcis-sur-Aube Oct. 26, 1759. He played a very important part during the first years of the French Revolution. Robespierre hated him, and succeeded in bringing about his downfall. On April 5th 1794, the revolutionary tribunal condemned him to death as an accomplice in a conspiracy for the restoration of monarchy, and confiscated his large property. The same day he mounted the fatal car with courage and without resistance.

**Danube,** a celebrated river of Europe, originates in two small streams rising in the Schwarzwald, or Black Forest, in Baden, and uniting at Donaueschen. The direct distance from source to mouth of the Danube is about 1,000 miles, and its total length, including windings, about 1,640 miles. The Danube is navigable nearly 1,500 miles from its mouth.

**Danube Navigation Commission,** an international commission, constituted in 1856, when at the Peace of Paris the navigation of the river was declared free to all nations. It exercises almost sovereign power on the mouths of the Danube.

**Danville,** city and capital of Vermilion county, Ill.; on the Vermilion river and several railroads; 124 miles S. of Chicago; is in a noted grain and livestock section; is the seat of a branch of the National Soldiers' Home; has valuable bituminous coal mines; and manufactures flour, lumber, glass, woolen goods, and iron and steel work. Pop. (1920) 33,776.

**Danville,** a city and county-seat of Pittsylvania Co., Va., on the Dan river, 140 miles S. W. of Richmond; is the seat of Randolph-Macon Institute, Roanoke Female College, Danville Female College, and Danville Military Institute, and has good water-power. It is the center of the fine yellow tobacco section, and 30,000,000 pounds of leaf-tobacco are sold annually. Pop. (1920) 21,569. It is mentioned frequently in the history of the Civil War.

**Danzig,** a fortified town and port, Prussia, capital of the Province of West Prussia, 253 miles N. E. of Berlin, on the left bank of the W. arm of the Vistula, about three miles above its mouth in the Baltic. It is one of the most important seaports in the Prussian monarchy. Pop. (1919) 352,000.

**Da Ponte, Lorenz,** an Italian dramatist and author; born in Venice, March 10, 1749. He came to America in 1805, and in 1828 was Professor of Italian in Columbia College. He died in New York, Aug. 17, 1838.

**Darboy, Georges,** Archbishop of Paris; born Jan. 16, 1813, in Fayl-Billot, in Haute-Marne. He was educated at the seminary of Langres, and after his ordination as priest was appointed a professor there. In 1845 he went to Paris, where his reputation as translator of Dionysius the Areopagite had preceded him. In 1854 he was made prothonotary apostolic, in 1859 Bishop of Nancy, and in 1863 Archbishop of Paris. Arrested as a

hostage by the Communists, April 4, 1871, he was shot in the court of the prison of La Roquette on May 24.

**Dardanelles,** (the ancient Hellespont), a narrow channel within the Turkish dominions, which connects the Sea of Marmora with the Grecian Archipelago, and at this particular point separates Europe from Asia. It stretches N. E. and S. W., and is about 40 miles in length, varying in breadth from 1 to 4 miles. The Asiatic side is seen gradually rising from the sea to the range of Mount Ida, and exhibits the appearance of a fine and fertile country. The European side is in general steep and rugged, but in many parts densely peopled and highly cultivated; while its various inlets form secure harbors for vessels of every size. The modern name of this strait is derived from the castles, called the Dardanelles, built on its banks at its S. W. entrance; its ancient name, Hellespont, from Helle, daughter of Athamas, King of Thebes, who was fabled to have been drowned in it. It is also renowned as the scene of the death of Leander, who, it is said, used to swim across from Abydos on the Asiatic side, at the narrowest part of the strait to visit Hero of Sestos on the European side, a feat also performed by Lord Byron, who achieved it in one hour and ten minutes. Nearest the Archipelago lie the two castles called the new castles. About 12 miles farther to the N. E. lie the old castles, built by Mohammed II. immediately after the conquest of Constantinople. Four coast batteries have been built since 1867 somewhat farther to the N. On July 20, 1770, when the squadron of the Russian Admiral, Elphinstone, consisting of three ships of the line and four frigates, in pursuit of two Turkish ships of the line appeared before the first castles, the Turkish batteries, from want of ammunition, were obliged to cease firing after one discharge, and Elphinstone sailed by without receiving more than a single shot; and in 1807 Admiral Duckworth, with eight ships of the line and four frigates, effected a passage through the Dardanelles without loss. In 1854, during the Crimean War, the castles and other defenses of Constantinople were put in repair. It had long been recognized that the Turks had a right to prevent any foreign ship of war from passing the Dardanelles, and in 1841 a treaty was signed between the five great European powers and the Porte in which it was laid down that this was not to be permitted. One of the most notable, and at the same time disastrous, compaigns in the early part of the World War was that of the Entente Allies for the capture of Constantinople by means of the Dardanelles. On March 1, 1915, a British fleet passed therein for a distance of 16 miles, and on March 25 following British and French troops were landed at Gallipoli to support the fleet. Through inadequate preparation—lack of men, munitions, heavy guns, etc., on the part of the Allies—and a stanch defense by Turkey the campaign was defeated. By Treaty of Lausanne, 1923, the Straits are thrown open to commerce of all nations.

**Darfur,** a former province of the Sudan, Central Africa; came under Egyptian control in 1875 and under Anglo-Egyptian in 1899; in about 10° to 16° N. lat., and in 22° to 28° E. lon.; but its limits are not clearly defined. The Fulohs are an intelligent, well-built race, and have long been Mohammedans.

**Darien, Gulf of,** a gulf of the Caribbean Sea at the N. extremity of South America, between the Isthmus of Panama and the mainland.

**Darien, Isthmus of,** often used as synonymous with the Isthmus of Panama, but more strictly applied to the neck of land between the Gulf of Darien and the Pacific.

**Darien Scheme,** a celebrated financial project, conceived and set afloat by William Paterson, a Scotchman, toward the close of the 17th century. He was the first projector of the Bank of England, but was disappointed of his just recompense. His next scheme was one of magnificent proportions. He proposed to form an emporium on each side of the Isthmus of Darien or Panama for the trade of the opposite continents. The settlement thus formed would become the entrepot for an immense exchange between the manufactures of Europe and the produce of South America and Asia. Paterson had designed to

limit the benefits of the scheme to Scotland mainly, but had to seek help in London, where the subscriptions soon ran up to $1,500,000.

Alarm was soon excited among the English merchants at the gigantic Scotch scheme, and the English subscriptions were withdrawn. Scotland, indignant at this treatment, subscribed at once and with great enthusiasm $2,000,000. Little more than the half, however, was paid up. In 1698 five large vessels laden with stores, etc., and with 1,200 intending colonists, sailed for the Isthmus of Darien. The settlement formed a suitable position, and the colonists fortified a secure and capacious harbor; but nothing else had been rightly calculated.

To add to their difficulties the colonists were attacked by the Spaniards and all commerce forbidden with them. For eight months the colony bore up, but at the end of that time the survivors were compelled by disease and famine to abandon their settlement and return to Europe. Two of the ships were lost on the way home, and only about 30, including Paterson, reached Scotland. It is claimed, with some probability, that the English government was jealous of the share of Scotland in the undertaking.

**Darius I.,** King of Persia; born in 548 B. C. He was a great conqueror, but failed disastrously in his wars against Greece. Egypt revolted against him. He died in 485, before the Egyption revolt (487) had been subdued, and in the midst of his preparations for a third expedition against the Athenians, and was succeeded by Xerxes.

**Darius II.,** King of Persia, successor of Xerxes; died 405 B. C.

**Darius III.,** surnamed CODOMANNUS, son of Arsanes and Sysigambis, and great-grandson of Darius II., was the 12th and last King of Persia. He ascended the throne 336 B. C. Alexander of Macedon attacked the country, and the army which was sent against him by Darius was totally routed on the banks of the Granicus, in Asia Minor. Darius then advanced, with 400,000 soldiers, to the plains of Mesopotamia, and was a second time totally routed near the Issus, 333 B. C.

Alexander subjected Egypt, and Darius found himself once more obliged to collect an army. He led his forces from Babylon to Nineveh, while Alexander was encamped on the banks of the Tigris. The two armies met between Arbela and Gaugamela, and after a bloody engagement Darius was compelled to seek safety in flight (331 B. C.). Alexander took possession of his capital, Susa, captured Persepolis, and reduced all Persia. Darius meanwhile arrived at Ecbatana, in Media, where he had another army of 30,000 men. With these he wished to march against the conqueror, but a conspiracy frustrated his plan. The traitors soon after took possession of his person, and carried him in chains to Bactria. Here he refused to accompany them any farther, and they transfixed him with their javelins, and left him to his fate. Scarcely had Darius expired, when Alexander came up. He melted into tears at the sight of the corpse, caused it to be embalmed, and deposited by the side of the other Persian monarchs. The date of these events was 330 B. C.

**Darjeeling,** or **Darjiling,** a district of India, in the extreme N. of the lieutenant-governorship of Bengal; division of Cooch-Behar; area, 1,234 square miles. Pop. 155,179. DARJEELING, the chief town in the district, is a sanatory station for British troops. Pop. (1911) 17,053.

**Dark Ages, The,** a period supposed to extend from the fall of the Roman empire, A. D. 475, to the revival of literature in the 12th century, but often given a much more extended, and fully justifiable meaning.

**Dark and Bloody Ground, a** name frequently applied to the State of Kentucky. It is said to be a translation of the Indian words "Kaintuk-ee," though some authorities claim that they signify "At the head of the river." The epithet was originally bestowed because the region was the scene of many sanguinary conflicts between the red men of the Northern and Southern tribes. Later the constant feuds between white settlers and the aborigines rendered the phrase peculiarly appropriate to this locality.

**Dark Continent, The,** Africa, in allusion to the almost total ignorance concerning the people and geography of its interior which until quite re-

cently was prevalent in America and Europe.

**Darley, Felix Octavius Carr,** an American artist; born in Philadelphia, June 23, 1822. His illustrations of literary masterpieces made him famous. He died March 27, 1888.

**Darling, Flora (Adams),** an American novelist; founder of the Daughters of the Revolution and other patriotic societies; born in New Hampshire in 1840; died Jan. 6, 1910.

**Darling, Grace,** an English heroine; born in the Longstone Lighthouse (Farne Islands, coast of Northumberland), of which her father was keeper, Nov. 24, 1815. In 1838 the steamer "Forfarshire," with 41 passengers on board besides her crew, became disabled off the Farne Islands during a storm, and was thrown on a rock, where she broke in two, part of the crew and passengers being left clinging to the wreck. Next morning William Darling descried them from Longstone, about a mile distant, but he shrank from attempting to reach the wreck through a boiling sea in a boat. His daughter Grace, however, implored him to make the attempt and let her accompany him. At last he consented, and father and daughter each taking an oar, they reached the wreck and succeeded in rescuing nine sufferers. The news of the heoric deed soon spread, and the brave girl received testimonials from all quarters. A purse of $3,500 was publicly subscribed and presented to her. Four years afterward she died of consumption, Oct. 20, 1842.

**Darlington, William,** an American botanist; born in Birmingham, Pa., April 28, 1782. He was a soldier in the War of 1812, and a member of Congress from 1815 to 1817 and 1819 to 1823. He died in Manchester, Pa., April 23, 1863.

**Darmesteter, Agnes Mary Frances (Robinson),** an English poetess; born in Leamington, 1857. She attained great profficiency in Greek studies, her verse showing the influence of Hellenic literature. In 1888 she married James Darmesteter, the Orientalist.

**Darmesteter, James,** a French Orientalist; born in Chateau-Salins, March 28, 1849; died Oct. 19, 1894.

**Darmstadt,** a town in Germany; capital of the Grand-duchy of Hesse, in a sandy plain, on the Darm, 15 miles S. of Frankfort. Pop. (Est.) 90,000.

**Darnley, Henry Stuart, Lord,** son of the Earl of Lennox and Lady Margaret Douglas, a niece of Henry VIII., and by her first marriage queen of James IV.; born 1541. In 1565 he was married to Mary Queen of Scots. It was an unfortunate match. After the birth of a son subsequently James VI., Darnley was seized at Glasgow with smallpox, from which he had barely recovered when Mary visited him, and had him conveyed to an isolated house called Kirk of Field, close to the Edinburgh city walls. This dwelling which belonged to a retainer of Bothwell, the rapidly rising favorite, was blown into the air with gunpowder, Feb. 10, 567. The dead bodies of the king and his page were found in a field at a distance of 80 yards from the house, quite free from any mark which such an explosion would cause. Strong circumstantial evidence points to Bothwell as the murderer.

**Dartmouth College,** Hanover, N. H. (non sect.), organized 1769. Originally dedicated to educating Indians as Moor's Indian School (1750) at Lebanon, Conn. With a fund of about £10,000, a board of trustees was organized with Earl of Dartmouth, chairman. In 1769 the college moved to Hanover, N. H., George III having granted a royal charter to "Dartmouth College", leaving Moor's School a separate institution. The site is located on large tracts of land donated by the State through its Governor, John Wentworth. In the year 1925-6 there were 2,142 students and 192 teachers. Present endowment is $3,000,000.

**D'Arusmont, Madame Frances,** maiden name FANNY WRIGHT, an American philanthropist and author; born in Dundee, Scotland, Sept. 6, 1795. She visited this country several times, and in 1825 made an unsuccessful attempt to establish a settlement for the elevation of the negro, at Memphis, Tenn. Later she lectured on social, religious, and political questions. She died Dec. 14, 1852.

**Darwin, Charles Robert,** an English naturalist; born in Shrewsbury,

Feb. 12, 1809; was the son of Dr. Robert Darwin and grandson of Dr. Erasmus Darwin. He was educated at Shrewsbury School, and at the universities of Edinburgh and Cambridge. He early devoted himself to the study of natural history. In 1839 he married his cousin, Emma Wedgwood, and henceforth spent the life of a quiet country gentleman, engrossed in scientific pursuits — experimenting, observing, recording, reflecting, and generalizing. In 1859 his name attained its great celebrity by the publication of "The Origin of Species by Means of Natural Selection." This work, scouted and derided though it was at first in certain quarters, may be said to have worked nothing less than a revolution in biological science. In it for the first time was given a full exposition of the theory of evolution as applied to plants and animals, the origin of species being explained on the hypothesis of natural selection. The rest of his works are largely based on the material he had accumulated for the elaboration of this great theory. He died April 19, 1882, and was buried in Westminster Abbey.

**Darwinian Theory,** the explanation of the working of natural selection in effecting specific changes in plants and animals. "Darwinism" must not be confused with "Evolution." Darwinism is restricted to one particular interpretation of the mechanism of the universe, and is essentially stated in Darwin's great work, "The Origin of Species by Means of Natural Selection." Darwin points out that the theory of evolution by natural selection is no more inimical to religion than is that of gravitation, to which the same objection was raised.

**Dasent, Sir George,** an English philologist and novelist; born on the island of St. Vincent, 1818. He was for a while one of the editors of the London "Times," and was one of the Civil Service Commissioners. He is eminent as a scholar in the Norse languages, particularly Icelandic. He died June 11, 1896.

**Dasyure,** the brush-tailed opossums a genus of marsupial animals. They are natives of Australia. The name is derived from the tails being hairy, in which they differ from the opossums of America.

**Date,** any given, fixed, or settled time; the time when any event happened; period; era; age; epoch, as, the date of the Christian era, the date of a historical occurrence, etc. Also, that addition to a writing which specifies the year, month, and day when it was given or executed; the number which marks the time when any writing, instrument, coin, picture, etc., was executed.

**Date Line,** an arbitrary line drawn on a map from N. to S., on the one side of which it is today and on the other tomorrow, even in places not a mile apart. When ships cross this line they drop or repeat a day. The international date line describes the following course: Starting at the North Pole it passes through Bering Strait, then slants to the W. to clear the long horn formed by the Aleutian chain of islands and give them the same day as the United States, to which they belong. This accomplished, it returns to the 180th meridian and drops S. into the tropics, keeping far to the E. of the Japanese group and the Philippines till it approaches the latitude of the Fiji Islands. As these and some of the neighboring groups belong to Great Britain and do business chiefly with her Australian colonies, the date line here makes a sudden swerve to the E., so as not to embarrass the local commerce with a change of day.

**Date Palm,** a genus of palms, the most important species of which is the common date palm, the palm tree of Scripture, a native of the N. half of Africa, the S. W. of Asia, and some parts of India, and of which the cultivation is no less wide, and still extending. Some parts of China produce large crops. The stem, which is straight and simple, reaches a height of 30 to 60 feet, and bears a head of 40 to 80 glaucous pinnated leaves, 8 to 10 feet long, and a number of branching spadices, each of which on the female tree bears 180 to 200 fruits. A bunch of dates weighs 20 or 25 pounds, so that an average year's crop may be reckoned at 300 to 600 pounds per tree, and the yield per acre at about 12 times that of corn.

This is one of the most important and useful of all the palms. In Egypt, and generally in North Africa, Persia, and Arabia, dates form the principal food, and date palms the principal wealth of the people.

Some derive the origin of the colonnade pillar in architecture to the regular mode of the planting of the palm tree and the use of its stem in building, while in symbolic interest the palm tree stands second to no other plant. The symbol of beauty and of victory alike to Hebrews and Hellenes from the earliest times, it passed readily to the suggestion of victory over death and glorious immortality; hence the habit of representing angels and the blessed with palms in their hands. It was largely used also for decoration of festivals, and for strewing in processions. Christ's triumphal entry into Jersualem is still commemorated on Palm Sunday.



DATE PALM.

**Date Plum.** The American date plum, or persimmon attains a height of 50 or 60 feet; the fruit is nearly round, about an inch in diameter, is very austere, but edible after being frosted. The Chinese date plum is cultivated for the sake of its fruit, which is about the size of a small apple, and is made into a preserve. The European date plum is a low-growing tree, native of the S. of Europe. It produces a small fruit, the supposed lotus of the ancients.

**D'Aubigne, Jean Henri Merle,** a celebrated Swiss Protestant Church historian; born near Geneva, Aug. 16, 1794. He was Professor of Historical Theology at Geneva (1831–1872). His great work was "History of the Reformation" (1835–1853), with its continuation, "History of the Reformation in the Time of Calvin" (1863–1876). He died in Geneva, Oct. 24, 1872.

**Daubigny, Charles Francois,** a French landscape painter and etcher; born in Paris in 1817; died in Paris, Feb. 19, 1878.

**Daudet, Alphonse,** a French novelist; born in Nimes, May 13, 1840; died in Paris, Dec. 16, 1897.

**Daudet, Ernest,** a French novelist; brother of Alphonse Daudet; born in Nimes, May 31, 1837.

**Daughter of the Confederacy.** See DAVIS, VARINA ANNE JEFFERSON.

**Daughters of the American Revolution,** a society composed of women who are descendants of ancestors who "with unfailing loyalty rendered material aid to the cause of independence as a recognized patriot, as soldier or sailor, or as a civil officer in one of the several colonies or States." It was organized in Washington, D. C., Oct. 11, 1890.

**Daughters of the Confederacy,** an association composed of the widows, wives, mothers, sisters, and lineal female descendants of men who served honorably in the army and navy of the Southern States, or who gave personal services to the Confederate cause. It was organized at Nashville, Tenn., Sept. 10, 1894.

**Daughters of the Holland Dames,** a colonial society of women, the official title being "The Daughters of Holland Dames, Descendants of the Ancient and Honorable Families of New York," was incorporated for the purpose of erecting a memorial to commemorate the early Dutch period

of our colonial history, and to preserve and collect historical documents relating to the same.

**Daughters of the King,** a Protestant Episcopal order of women (not to be confused with the King's Daughters), organized in 1885. The aim of the society is to bring young women within the influence of the Church and to coöperate with the rectors of parishes to that end.

**Daughters of the Revolution,** a patriotic society of women in the United States, organized in 1891. Eligibility to membership is restricted to "women who are lineal descendants of an ancestor who was a military or naval or marine officer, soldier, sailor, or marine, in actual service under the authority of any of the 13 Colonies or States, or of the Continental Congress, and remained always loyal to such authority, or descendants of one who signed the Declaration of Independence, or of one who as a member of the Continental Congress or of the Congress of any of the Colonies or States, or as an official appointed by or under the authority of any such representative bodies, actually assisted in the establishment of American independence by service rendered during the War of the Revolution, becoming thereby liable to conviction of treason against the government of Great Britain, but remaining always loyal to the authority of the Colonies or States."

**D'Aumale.** See AUMALE.

**Daumer, Georg Friedrich,** a German writer; born in Nuremberg in 1800. He died in Würzburg, Dec. 14, 1875.

**Daumier, Honoré,** a French caricaturist; born in Marseilles in 1808; died in Valmondois, Feb. 10, 1879.

**Dauphin,** the title of the eldest son of the kings of France or of the heir apparent to the throne.

**Davenant, William,** an English poet and playwright; born at Oxford in February, 1606. A story was current in his lifetime that he was an illegitimate son of Shakespeare. He wrote many plays and poems, but none possessing any distinguished merit; he succeeded Ben Jonson as poet-laureate of England. He died April 7, 1668.

**Davenport,** city and capital of Scott County, Ia., on the Mississippi, opposite Rock Island, Ill., 180 miles southwest of Chicago. Founded in 1835, it is a handsome, well-built city, with large agricultural and coal-mining interests. Pop. (1920) 56,727.

**Davenport, Charles Benedict,** zoologist, born at Stamford, Conn., June 1, 1866, studied at the Brooklyn Polytechnic Institute, and at Harvard, where he graduated Ph. D. in 1892. Appointed director of Cold Spring Harbor Marine Biological Laboratory 1898, and assistant professor of zoology at the University of Chicago 1900. Is author of valuable biological works.

**Davenport, Homer Calvin,** an American cartoonist; born in Silverton, Ore., March 8, 1867. He was bred on a farm in Oregon, having neither common school nor art education. From 1896 he was cartoonist for the New York "Journal" and after 1900 for the Chicago "American" as well. His cartoons gained wide fame for originality and forcefulness. He died May 2, 1912.

**Davenport, John,** a clergyman and author, born in Coventry, England, in 1597. He was one of the founders of New Haven, Conn. In 1660 he hid the regicides Goffe and Whalley from their pursuers. He died in Boston, March 15, 1670.

**David,** King and Prophet of Israel; born in Bethlehem, B. C. 1085; was the eighth and youngest son of Jesse of Bethlehem. He was keeping his father's flocks when he was selected and anointed by the prophet Samuel, at the age of 15, to succeed Saul. Having been brought to the court of Saul to soothe the melancholy of the king by his harp, he first signalized himself by slaying Goliath of Gath, a gigantic Philistine. He won the friendship of Jonathan, and the love of his daughter Michal, but at the same time drew upon himself the jealousy, and fury of the unhappy king, who repeatedly attempted to kill him. David fled into the wilderness, concealing himself in caverns. At the head of a band of outlaws and malcontents he baffled every attempt of

Saul to capture him. When Saul fell, David was acknowledged king by the tribe of Judah; but the other tribes placed Ishbosheth, the younger son of Saul, on the throne, occasioning a civil war. On the death of Ishbosheth, however, the contending parties united in submission to David, who reigned with great glory for 30 years. He took Jerusalem from the Jebusites, and gained considerable victories over the Philistines and other neighboring nations; but tarnished his glory by taking Bathsheba from Uriah, her husband, and putting him to death. He also suffered by causing the people to be numbered. A rebellion was excited against him by his son Absalom, which was quelled, and Absalom slain. When the news of this was brought to David, he lamented the untimely fall of his son in affecting terms. At the close of his life he abdicated in favor of his son Solomon. He died 1015 B. C.

The historical picture of David fully supports the tradition that "the sweet singer of Israel" was the greatest poet of his time, and the founder of the sublime religious lyric poetry of the Hebrews, though many of the Psalms are productions of the Davidic spirit more than of David's own pen.

**David I.,** (often called St. David), King of Scotland; born about 1080; succeeded his brother, Alexander the Fierce, in 1124. He married Maud, grandniece of William the Conqueror; and was earl of Northumberland and Huntingdom when called to the Scottish throne. He died in 1153.

**David II.,** King of Scotland, son of Robert Bruce; born in 1322; succeeded to the throne in 1329. On the death of his father he was acknowledged by the great part of the nation. Edward Baliol formed a party for the purpose of supporting his pretensions to the crown; he was backed by Edward III. of England. Battles were frequent, and at first Baliol was successful; but eventually David succeeded in driving him from Scotland. Still, however, the war was carried on with England with increasing rancor, till at length David was made prisoner at the battle of Neville's Cross (1346). After being detained in captivity for 11 years he was ransomed for 100,000 marks. He died in 1370.

**David, Ferdinand,** a German violinist; born in Hamburg, Jan. 19, 1810; pupil of Sphor; made his debut in 1824; leader of Gewandhaus Concerts, Leipsic, 1836. He died in Kloster, Switzerland, in 1873.

**David, Gerhard,** a Dutch painter; born at Oudewater, about 1450; died in Bruges in 1523.

**David, Jacques Louis,** founder of the modern French school of painting; born in Paris, Aug. 31, 1748. He went to Rome in 1774, and passed several years there painting several important pictures. In the Revolution he was a violent Jacobin and wholly devoted to Robespierre. Several of the scenes of the Revolution supplied subjects for his brush. He was appointed first painter to Napoleon about 1804; and after the second restoration of Louis XVIII. he was included in the decree which banished all regicides from France, when he retired to Brussels, where he died Dec. 29, 1825.

**David, Pierre Jean,** a French sculptor; born in Angers, March 12, 1789 (hence commonly called David d'Angers). He executed a great number of medallions, busts, and statues of celebrated persons of all countries, among whom we may mention Washington and Lafayette. He died in Paris, Jan. 5, 1856.

**David,** or **Dewi, St.,** the patron saint of Wales; first mentioned in the "Annales Cambriæ" (10th century) as having died in 601, Bishop of Moni Judeorum, or Menevia, afterward St. David's. He presided over two Welsh synods, at Brefi and at "Lucus Victoriæ."

**Davidson, George,** an American astronomer; born in Nottingham, England, May 9, 1825; came to the United States in 1832; graduated at the Central High School, Philadelphia, in 1845; and joined the United States Coast Survey. While in this service he was chief engineer of a party which surveyed a ship-canal route across the Isthmus of Darien. He also made a geographical survey of the coast of Alaska in 1867, and reported on its products, etc. In 1874 he had charge of the party which went from the United States to Japan to make observations on the transit of

Venus. From 1877–1884 he was Regent of the University of California, and for many years was President of the California Academy of Sciences. He retired from the Coast Survey, after 50 years of distinguished service, in 1895, and became Professor of Geography in the University of California. He died Dec. 1, 1911.

**Davidson, John,** a Scotch poet, novelist, and miscellaneous writer; born in Barrhead, Renfrewshire, in 1857. He was at first a teacher, but in 1890 went to London and adopted the literary career. Died, 1909.

**Davidson, Lucretia Maria,** an American poet; born in Plattsburg, N. Y., Sept. 27, 1808. She was remarkably precocious, and at the age of nine years wrote her first poem: "Epitaph on a Robin." She died in Plattsburg, Aug. 27, 1825.

**Davidson, Margaret Miller,** an American poet; sister of the above; born in Plattsburg, N. Y., March 26, 1823. After her death at Saratoga, N. Y., Nov. 25, 1838, her poems were published with a memoir, written by Washington Irving, and met with warm applause.

**Davidson, Randall Thomas,** Archbishop of Canterbury, b. 1848. He became dean of Windsor, 1883; bishop of Rochester, 1891; of Winchester, 1895; and archbishop, 1903. He visited the United States in 1904.

**Davidson, Thomas,** a Scotch-American philosopher and writer; b. Aberdeenshire, Oct. 25, 1840. He came to the United States in 1867; was professor in St. Louis High School, and in 1875 settled in Cambridge, Mass. Much of his literary work was done in Greece and Italy. He died in Montreal, Sept. 14, 1900.

**Davidson College,** an educational institution in Davidson, N. C.; founded in 1837, under the auspices of the Presbyterian Church.

**Davies, Charles,** an American mathematican; born in Washington, Litchfield co., Conn., Jan. 22, 1798. He was educated at the United States Military Academy and was appointed Professor of Mathematics there in 1828. He held the same post subsequently at Columbia College and in the University of New York. He died in Fishkill Landing, N. Y., Sept. 18, 1876.

**Davies, Thomas Alfred,** an American military officer and writer; born in Black Lake, St. Lawrence co., N. Y., Dec. 3, 1809; graduated from West Point in 1829; became a brevet Major-General of volunteers in the Civil War. He died in Black Lake, Aug. 19, 1899.

**Davies, Thomas Frederick,** an American clergyman; born in Fairfield, Conn., Aug. 31, 1831. He graduated at Yale in 1853 and at Berkeley Divinity School in 1856, being ordained in the Protestant Episcopal Church in 1857, and in 1889 became Bishop of Michigan. Died in 1905.

**Daviess, Joseph Hamilton,** an American lawyer; born in Belford co., Va., March 4, 1774. He was famed for his eccentricities and was commonly known as "Jo" Daviess. He was appointed United States District Attorney in Kentucky and in that capacity prosecuted Aaron Burr for treason. Jo Daviess county in Illinois was named in his honor. He was killed at the battle of Tippecanoe, Nov. 7, 1811.

**Davis, Andrew Jackson,** an American spiritualist and author; born in Orange Co., N. Y., Aug. 11, 1826. He resided in Boston, Mass. He died Jan. 13, 1910.

**Davis, Charles Henry,** an American mathematican; born in Boston, Jan. 16, 1807. He entered the United States navy in 1823, and was commissioned commander in 1854. He made several coast-surveys, partly in conjunction with Prof. A. D. Bache, and partly with others. He died in Washington, D. C., Feb. 18, 1877.

**Davis, Cushman Kellogg,** an American legislator; born in Henderson, N. Y., June 16, 1838. He graduated at the University of Michigan in 1857; was admitted to the bar, but enlisted in the Union army in 1861. He began the practice of law in St. Paul, was chosen to the Minnesota Legislature, became United States district attorney, governor, and United States Senator. He was a Republican, and a member of the Peace Commission which negotiated the treaty between Spain and the United States in 1898. He was for several years

chairman of the Senate Committee on Foreign Relations, and reported the resolution which practically declared war against Spain. He died in St. Paul, Minn., Nov. 27, 1900.

**Davis, David,** an American jurist; born in Cecil co., Md., March 9, 1815. He graduated at Kenyon College and settled in Illinois as a lawyer. He was elected to the Legislature and served as a State Circuit Judge; he was appointed an Associate Justice of the Supreme Court of the United States. He resigned in 1877 to enter the United States Senate, of which he became president pro tem. in 1881, and retired in 1883. He died in Bloomington, Ill., June 26, 1886.

**Davis, Edwin Hamilton,** an American archæologist; born in Ross co., O., Jan. 22, 1811. He was author of "Ancient Monuments of the Mississippi Valley." He died in New York city, May 15, 1888.

**Davis, Henry Winter,** an American statesman and orator; born in Annapolis, Md., Aug. 16, 1817. He was a member of Congress for three terms, and took a leading part in advocating emancipation and loyalty to the Union. He died in Baltimore, Md., Dec. 30, 1865.

**Davis, Jefferson,** an American statesman; born in Abbeville, Christian co., Ky., June 3, 1808. When he was three years old, his father removed with his family to Wilkinson co., Miss. He received an academical education and entered Transylvania University, Lexington, Ky., in 1822, which he left in 1824 to enter the United States Military Academy, from which he was graduated in 1828. He was appointed a second lieutenant of infantry, and served on the Northwestern frontier during the Black Hawk War of 1831–1832. In 1831 he was promoted to first lieutenant of dragoons for gallantry in action, and was employed in operations against the Pawnees, Comanches, and other Indian tribes. In June, 1835, he resigned his commission, and retired to a cotton plantation in Mississippi. He continued in retirement until 1843, when he began to take an interest in politics upon the Democratic side; and in 1844 was chosen a presidential elector. In 1845 he was elected a Representative to Congress; but resigned in 1846, having been elected colonel of the First Mississippi Volunteer Regiment of rifles, and served in the Mexican War, greatly distinguishing himself at Monterey and Buena Vista, and being severely wounded in the latter battle. He was appointed a Brigadier-General of volunteers by President Polk in 1847, but declined the commission on the grounds that, by the Constitution, the militia appointments were reserved to the States, and that such appointments by the President were in violation of State rights.

The same year he was chosen to fill a vacancy in the United States Senate, and was reëlected by acclamation in 1850 for a full term. In 1853 he was appointed Secretary of War by President Pierce, and in 1857, was again elected to the United States Senate, when he took a prominent place among the Southern leaders, and was among the most determined of them all in his assertions of the rights of the States under the Constitution, and also of the right of secession. On Jan. 21, 1861, he took his leave of the Senate in a speech in which he gave his opinion that, by the secession of his State, his connection with that body was terminated, and reaffirmed the doctrine of the right of secession. The Confederate Congress, at Montgomery, Ala., chose him President, under the Provisional Constitution, on Feb. 9, 1861, and he accepted the office on the 16th in a brief address, in which he expressed his desire for the maintenance of peaceful relations with the States which remained in the Union. He asserted that all that the seceeding States desired was to be "let alone," but announced that, if war should be forced upon them, they would make the enemies of the South "smell Southern powder and feel Southern steel."

On April 17, two days after the first proclamation of President Lincoln, he responded by a proclamation authorizing privateering; and on Aug. 14 issued a second one, warning all persons of 14 years and upward, owing allegiance to the United States, to leave the Confederacy within 40 days, or be treated as alien enemies. On Nov. 6 he was chosen permanent Presi-

dent, and was inaugurated Feb. 22, 1862. On May 21 he approved an act in answer to one enacted by the United States Government, providing that all persons owing debts to parties in the North should pay the same into the Confederate treasury. Mr. Davis continued to be President of the Southern Confederacy until his capture at Irwinsville, Ga., May 10, 1865, having left Richmond a few hours before General Lee withdrew his troops, and after General Lee's surrender, when he was endeavoring to reach the Army of the West. He was conveyed to Fort Monroe, and indicted by the Grand Jury of the District of Columbia for treason. He was never brought to trial; never asked pardon, and only asked a trial, but, after two years' imprisonment, was released, at the instance of the government, on bail, Horace Greeley becoming one of his sureties. He was included in the General Amnesty Act of Congress (Dec. 25, 1868). In 1871 he had a public reception at Atlanta, Ga., and made a speech in which he reaffirmed his adhesion to the doctrine of State sovereignty. For several years after the war he was president of a Southern insurance company and resided in Memphis, Tenn. The last years of his life were spent at Beauvoir, Miss., on an estate that he bought of Mrs. Dorsey before her death. He died in New Orleans, La., Dec. 6, 1889, and in 1893 amid imposing ceremonies his remains were removed to Richmond, Va., and re-interred in Hollywood Cemetery.

**Davis, Jefferson Columbus,** an American military officer; born in Clark co., Ind., March 2, 1828. He left school for the Mexican War, in which he received a commission for gallantry. He was with the garrison at Fort Sumter, S. C., when its bombardment began the Civil War. He received the brevet of Major-General and the full rank of colonel in the regular army for distinguished service on the Union side during the war. For some years after the war he was stationed on the Pacific coast, and was the first United States army officer to hold command in Alaska, where a new post, Fort Davis, was named after him in 1900. He died in Chicago, Nov. 30, 1879.

**Davis, John,** an English navigator; born near Dartmouth, in Devonshire, about 1550; went to sea at an early age. In 1585 he was sent out with two vessels to find a N. W. passage, when he discovered the straits which still bear his name. He made five voyages to the East Indies, on the last of which he was killed by Japanese pirates, Dec. 30, 1605.

**Davis, John Chandler Bancroft,** an American lawyer and diplomatist; born in Worcester, Mass., Dec. 29, 1822. He represented the United States in the "Alabama" arbitration; was Minister to Germany; became reporter of the United States Supreme Court in 1883. He died Dec. 27, 1907.

**Davis, Katharine Bement,** an American sociologist; born in Buffalo, N. Y., Jan. 15, 1860; was an A. B. at Vassar College in 1892; fellow in political economy at the University of Chicago in 1897–1900; superintendent of the New York State Reformatory for Women in 1901–14; and was appointed Commissioner of Correction of New York City on Jan. 1, 1914. She received the degree of LL. D. from Mt. Holyoke College, Western Reserve College, and Yale University.

**Davis, Rebecca Harding,** an American novelist; born in Washington, Pa., June 24, 1831. She contributed many short stories and sketches to periodicals, and wrote several novels. She died Sept. 29, 1910.

**Davis, Richard Harding,** an American author; born in Philadelphia, April 18, 1864. In 1898 he was a war correspondent in Cuba; in 1900 in South Africa; in 1914 in Europe. He died April 11, 1916.

**Davis, Varina Anne Jefferson,** "the Daughter of the Confederacy;" born in Richmond, Va., June 27, 1864. Her father was Jefferson Davis, the President of the Confederate States, and she was born in the Executive Mansion. Her education was obtained partly in the United States and partly in Germany and France. She died at Narragansett Pier, R. I., Sept. 18, 1898.

**Davis, Varina Howell Jefferson,** widow of the late Jefferson Davis, President of the Confederate

States, born in Natchez, Mississippi, May 7, 1826, daughter of William Burr and Margaret Kempe Howell, married to Jefferson Davis Feb. 25 1845, and was with him in all his public and private life, sharing his imprisonment after the war. Assisted her late husband to write "Decline and Fall of the Confederate Government." She died Oct. 16, 1906.

**Davis Strait,** a strait that washes the W. coast of Greenland, and connects Baffin Bay with the Atlantic Ocean. At its narrowest point, immediately N. of the Arctic circle, it measures about 200 miles across. In 1888 the identity between Ginnunga Gap, referred to in the Sagas, and the present Davis Strait was demonstrated.

**Davit.** 1. A beam projecting from a ship's bow, for the attachment of the tackle whereby the anchor-fluke is lifted without dragging against the side of the vessel. The operation is nautically called fishing the anchor.

2. One of a pair of cranes on the gunwale of a ship, from which are suspended the quarter or other boats. The boat-tackles are attached to rings in the bow and stern of the boat respectively, and the fall is belayed on deck.

**Davitt, Michael,** founder of the Irish Land League; born near Straid, County Mayo, Ireland, in 1846. Evicted from their small holding, the family emigrated to Haslingden in Lancashire (1851); and here six years later the boy lost his right arm through a machinery accident in a cotton factory. In 1866 he joined the Fenian movement, the result being that he was sentenced in 1870 to 15 years' penal servitude. He was released in 1877; and, supplied with funds from the United States, began some two years later an anti-landlord crusade in Ireland, which culminated in the foundation of the Irish Land League (Oct. 21, 1879). Davitt was henceforward in frequent collision with the government, and from February, 1881, to May, 1882, was imprisoned in Portland for breaking his ticket-of-leave.

Mr. Davitt was elected to the British Parliament in 1892 as an anti-Parnellite, but unseated on petition, on the ground of clerical and other intimidation. He was returned in 1895. He went to Russia for the New York American in 1903 to get the truth about the Kishineff massacre of Jews, and his accounts attracted much attention. He died May 30, 1906.

**Davout, Louis Nicolas,** a Marshal of France; born in Annoux, May 10, 1770. He studied with Napoleon at Brienne, and entered the army in 1785. He took sides with the revolutionists, fought several battles under Dumouriez, and was made a Brigadier-General in 1793. He accompanied Napoleon in his Italian campaigns and in his expedition to Egypt. In 1804 he was made a marshal of the empire. The victories of Ulm and Austerlitz were mainly due to him. He joined the Russian expedition, and was wounded at Borodino. After the retreat from Moscow he defended Hamburg against all the forces of the allies, and surrendered only after the peace of 1814. When Napoleon returned from Elba, Davout, was appointed his minister of war. After the battle of Waterloo he lived in retirement till 1819, when he took his seat in the Chamber of Peers. He died in Paris June 1, 1823.

**Davy, Sir Humphry, Bart.,** an English chemist; born in Penzance, Dec. 17, 1778. He early developed a taste for scientific experiments. So successful was he in his studies that he was appointed Professor of Chemistry in the Royal Institution at the age of 24. In 1803 he was chosen a member of the Royal Society.

The numerous accidents arising from fire-damp in mines led him to enter upon a series of experiments on the nature of the explosive gas, the result of which was the invention of his safety-lamp. He was knighted in 1812, and created a baronet in 1818. He died in Geneva, May 29, 1829.

**Davy Jones,** a sailor's familiar name for a malignant sea-spirit or the devil generally. The common phrase "Davy Jones's locker" is applied to the ocean as the grave of men drowned at sea.

**Davy Lamp,** the safety-lamp of Sir Humphry Davy, in which a wire-gauze envelope covers the flame-chamber and prevents the passage of flame outward to the explosive atmosphere

of the mine, while it allows circulation of air.

**Dawes, Charles Gates,** Vice-President of the United States, March 4, 1925. Born in Ohio, 1865. Comptroller of the Currency, 1897-1902; General Purchasing Agent for A. E. F. in 1917-18. Director of Budget, 1921. Since 1902 a dominant figure in the financial world. Elected Vice-President in 1924 on Republican ticket of Calvin Coolidge-Charles G. Dawes. Assumed office March 4, 1925.

**Dawes, Henry Laurens,** an American legislator; born in Cummington, Mass., Oct. 30, 1816. He graduated at Yale in 1839. Becoming a lawyer, he entered the State Senate as a Republican and in 1857 was elected to Congress, serving in the House until 1873. He was elected to the United States Senate. The condition of the Indian tribes especially claimed his attention, and after retirement from Congress he was at the head of the Commission to the Five Civilized Tribes. He died Feb. 5, 1903.

**Dawes, Rufus,** an American poet; born in Boston, Jan. 26, 1803. His verses were sung at the laying of the corner-stone of Bunker Hill monument. He died in Washington, D. C., Nov. 30, 1859.

**Dawson City,** the most important town in the gold region of the Klondike, N. W. Can. It is on the E. side of the Yukon river, and is reached by a perilous journey over the CHILKOOT PASS. Dawson is 575 miles from Juneau, the point from which most of the gold-seekers start. It was founded by Joseph Ladue, a miner, who built the first house here, Sept. 1, 1896. The place grew as if by magic. In September, 1898, three tons of gold, worth about $1,500,000, were shipped from Dawson, and the yield of gold continues very large. Pop. (Est.) 3,400.

**Dawson, George Mercer,** a Canadian geologist; born in Truro, Nova Scotia, Aug. 1, 1849. He was educated at McGill University, and at the Royal School of Mines in London. In 1874 he was made Assistant Director and in 1895, Director of the Geological Survey of Canada. He wrote geological works on Canada, and the Rocky Mountains. He died in 1901.



**Dawson, Sir John William,** a Canadian geologist; born in Pictou, Nova Scotia, Oct. 13, 1820. He studied at Edinburgh University, and in 1841 assisted Sir Charles Lyell in the geological exploration of Nova Scotia. In 1850 he was appointed Superintendent of Education of Nova Scotia, and in 1855 professor of natural history at McGill University. He was the author of valuable scientific works. He died in Montreal, Nov, 19, 1899.

**Day,** the time taken by the earth to revolve once on its axis. This varies according to the method adopted in making the calculation. A solar day is the interval between the time of the sun's coming to the meridian and returning to it again. Similarly a sidereal day is the interval between the time of a star's coming to the meridian and again returning to it on the immediately subsequent night. An apparent day is the interval which exists between two successive transits of the sun across the meridian. An astronomical day is a day beginning at 1 P. M. and continuing to the next. It is divided into 24 hours, not into two periods of 12 hours each.

A day, in law, includes the whole 24 hours from midnight to midnight. An obligation to pay on a certain day is theoretically discharged by payment before midnight; the law, however, requires that reasonable hours be observed. The time at which a bill is actually due and payable, except in the case of bills payable on demand or at sight, is three days after the time expressed on the face of it; these are called days of grace.

**Day, Jeremiah,** an American educator; born in New Preston, Conn., Aug. 3, 1773. He was president of Yale College from 1817 to 1846, and was the author of several scientific works. He died in 1867.

**Day,** or **Daye, Stephen,** an American colonial printer; born in London about 1610. He was employed by the Rev. Joseph Glover to accompany him to America in 1638, to operate a printing press which he was going to set up in Massachusetts. Mr. Glover died on the voyage and the press was placed in the house of Rev. Henry Dunster, first president of Harvard College. The first book printed in the colonies was issued from it in 1640, and

was entitled "The Whole Booke of Psalmes, faithfully translated into English metre." Day died in Cambridge, Mass., Dec. 22, 1668.

**Day, William Rufus,** an American jurist; born in Ravenna, O., April 17, 1849. He graduated from the University of Michigan, and the law school of the same institution. He immediately opened a law office in Canton, O. In 1886 he was elected judge of the Court of Common Pleas and in 1889 was appointed judge of the United States Circuit Court for the Northern District of Ohio, but declined. In 1897 he was appointed Assistant Secretary of State by President McKinley, and in 1898 became Secretary of State, conducting all the negotiations of the Spanish war. He was also made a member of the commission which framed the treaty of peace with Spain in Paris. In 1899 he was appointed a United States Circuit judge.

**Daylight Saving,** a scheme first adopted by Germany and Austria-Hungary as a war measure, then enacted into law in France and England (1916) and subsequently applied in several places in the United States. The principal object of the scheme is to make people rise an hour earlier in summer, clocks and watches being put forward an hour for five months, that is from the third Sunday in April to the third Sunday in September. The scheme has been derided by M. Lallemand, of the French Academy of Sciences, as bound to cause confusion Congress passed a Daylight Saving law in 1918. It is in practice in many parts of the country.

**Dayton,** city and county-seat of Montgomery Co., O.; on the Great Miami river at the mouth of the Mad river; 60 miles N. E. of Cincinnati. It is the fifth city in Ohio in population and importance. Dayton was settled in 1796; incorporated in 1805; and chartered as a city in 1841. Pop. (1920) 152,559; (1925 Est.) 172,942.

**Dayton, William Louis,** an American diplomatist; born in Baskingridge, N. J., Feb. 17, 1807. He graduated at Princeton and became a lawyer, Associate Judge of the Supreme Court and United States Senator. In 1856 he was nominated for the Vice-presidency by the Republican party. From 1857 to 1861 he was Attorney-General of New Jersey. In 1861 he was appointed Minister to France, holding the post until his death, in Paris, Dec. 1, 1864.

**Deacon,** (1) a servant, a waiting-man; (2) a minister of the Church, especially a deacon, a deaconess. Three portions of the New Testament refer to the ecclesiastical officers so denominated, viz.: Phil. i:1; I. Tim. iii: 6–13; Rom. xvi:1.

**Deaconess,** a female deacon in the early Christian Church. Deaconesses existed in the 1st century, and were generally respectable matrons or widows charged to look after the poor and perform other offices of utility to the Church. The office of deaconess has been revived in the United States, Germany, and to a certain extent in England.

**Dead, Book of the,** the great funerary work of the ancient Egyptians, who themselves entitled it "Per-em-Hru," "to go forth from day." It is a collection of prayers and exorcisms composed at various periods for the benefit of the pilgrim-soul in his journey through Amenti (the Egyptian Hades); and it was in order to provide him with a safe conduct through the perils of that terrible valley that copies of the work, or portions of it, were buried with the mummy in his tomb.

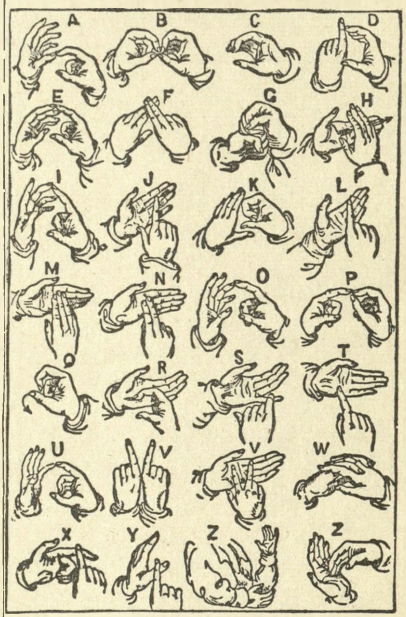
**Deadly Nightshade,** a plant botanically known as belladonna, yielding an extract of much utility in ophthalmic investigation. The "beauty" implied by the name is in the berries, which are shining black, but are poisonous. The best known antidote to them is vinegar.

**Dead Sea,** the usual name, dating from the time of Jerome, for a most remarkable lake in the S. E. of Palestine, called in the Old Testament The Salt Sea, Sea of the Plain, or East Sea; by Josephus, Lacus Asphaltites; and by the Arabs now, Bahr-Lut, "Sea of Lot." It is 46 miles long, with a breadth of from 5 to 9 miles. Its surface which is lower than that of any water known, is 1,292 feet below the level of the Mediterranean. The depth of the greater part, the N. section, is about 1,300 feet; but at the S. end the water is only from 3 to 12

feet deep. The shape is that of an elongated oval, interrupted by a promontory which projects into it from the S. E. The Dead Sea is fed by the Jordan from the N. and by many other streams, but has no apparent outlet, its superfluous water being supposed to be entirely carried off by evaporation. Along the E. and W. borders of the Dead Sea there are lines of bold, and in some cases perpendicular, cliffs rising in general to an elevation of 1,500 feet on the W. and 2,500 feet on the E. These cliffs are chiefly composed of limestone, and are destitute of vegetation except in the ravines traversed by fresh water streamlets. The N. shores of the lake form an extensive and desolate muddy flat, marked by the blackened trunks and branches of trees, strewn about and incrusted with salt. The S. shore is low, level, and marshy, desolate, and dreary. On this shore is the remarkable ridge of rock-salt, 7 miles long and 300 feet high, called Khashm Usdom (Ridge of Sodom). Lava-beds, pumice-stone, warm springs, sulphur, and volcanic slag prove the presence here of volcanic agencies at some period. The neighborhood of the Dead Sea is frequently visited by earthquakes, and the lake still occasionally casts up to its surface large masses of asphalt.

The water of the Dead Sea is characterized by the presence of a large quantity of magnesian and soda salts. Its specific gravity ranges from 1172 to 1227 (pure water being 1000). The proportion of saline matter is so great, that while sea-water contains only 3.5 per cent. of salts, the water of the Dead Sea contains upward of 26 per cent., or more than eight times as much as that of the ocean. In all lakes or collections of water without any outflow, the water acquires an infusion of salt, its feeders constantly bringing in this material, while none can go off by evaporation, even when the shores do not as here abound in salt and niter. The evaporation is great as the heat is intense, and the sea rather contracts than increases. Rain hardly ever falls; the water is nearly as blue and clear as that of the Mediterranean; and though its taste is horribly salt and fetid, a bath in it is refreshing. Owing to the great specific gravity of the water, it is almost impossible for the bather to sink in it, strive as he may.

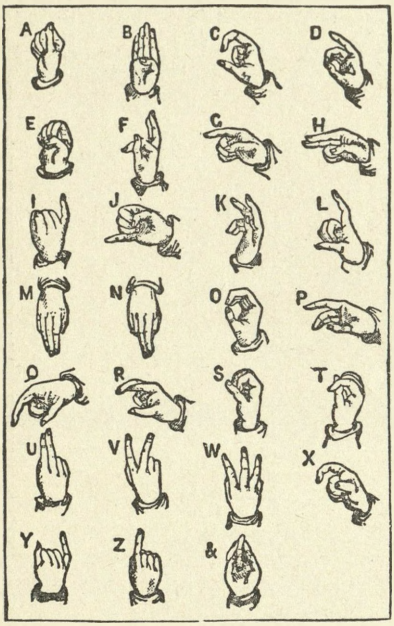
**Deaf and Dumb,** or **Deaf-Mutes,** persons both deaf and dumb, the dumbness resulting from the deafness which has either existed from birth or from a very early period of life. Such persons are unable to speak because they have not the guidance of the sense of hearing to enable them to imitate sounds. The two chief methods of conveying instruction to the deaf and




DEAF-MUTE ALPHABET—DOUBLE HAND.

dumb are by the means of the manual alphabet, and by training them to watch the lips of the teacher during articulation. There are two kinds of manual alphabet, the double-handed alphabet, where the letters are expressed by the disposition of the fingers of both hands; and the single-handed, in which the letters are formed with the fingers of one hand. Particular gestures which are attached to each word as its distinctive sign are largely used, as are also real objects

and models, pictures, etc. The method of teaching by articulation, the pupil learning to recognize words and in time to utter them, by closely watching the motions of the lips and tongue in speech, and by being instructed through diagrams as to the different positions of the vocal organs, is now receiving much attention. It is by no means a novel system, but of late it has vastly increased in favor with authorities. A new method of teaching articulation has recently been brought into notice, consisting in the




DEAF-MUTE ALPHABET—SINGLE HAND.

use of the system of "visible speech," devised by Prof. Melville Bell. The characters of the alphabet on which this system is founded are intended to reveal to the eye the position of the vocal organs in the formation of any sound which the human mouth can utter. Its practical value has not been tested sufficiently.

**Deak, Francis,** a Hungarian politician; born at Kehida in 1803. He died in Budapest, Jan. 29, 1876.

**Deal,** a municipal borough and seabathing place of England, in the E. of Kent. It has been one of the Cinque Ports since the 13th century. Of the three castles built by Henry VIII. in 1539, Deal Castle is the residence of its "captain"; Sandown Castle has been blown up as dangerous through the encroachment of the sea, and Walmer Castle is now the residence of the Warden of the Cinque Ports. It is supposed that Julius Cæsar landed near here in 55 B. C.

**Deal,** in the United States, a plank 12 feet long, 11 inches wide, and 2½ inches thick.

**Dealfish,** a genus of deep-sea bony fishes. Some eight species are known, and are found on the W. coast of South America and the shores of Europe. They rarely come to the surface.

**Dean** (literally, a head or chief of 10 men). In the United States the several schools of medicine, law, etc., connected with the universities frequently appoint a dean, whose functions vary with the requirements of his particular institution. The dean of a faculty is its registrar or secretary. The oldest in service of several officials of equal rank is known as a dean, as, for instance, dean of the diplomatic corps. It is also applied in courtesy to the oldest in service in any calling or profession. It is also a religious title or rank in the Anglican Church.

**Dean, James A.,** an American educator; born in Hubbardstown, Vt., in 1823. He graduated at Andover Theological Seminary and entered the Methodist ministry. He became an authority on female education. He died March 30, 1885.

**Dean, John Ward,** an American antiquarian; born in Wiscasset, Me., March 13, 1815. Died at Medford, Mass., Jan. 22, 1902.

**Deane, Silas,** an American diplomatist; born in Groton, Conn., Dec. 24, 1737. With Franklin and Lee he negotiated the treaty between France and the United States in 1778. He died in Deal, England, Aug. 23, 1789.

**Dearborn, Henry,** an American soldier; born in North Hampton, N.

H., Feb. 23, 1751. He won renown by a gallant charge at the battle of Monmouth in 1778, and by the capture of York (Toronto) and Fort George in 1813. He was Secretary of War under President Jefferson. He died in Roxbury, Mass., June 6, 1829.

**Death,** the cessation of life; the state of any being, animal, or plant, in which the vital functions have totally and permanently ceased to act. The signs of actual death are the heart's arrest and the gradual extinction of the vital functions; changes in the tissues; and changes in the external appearance of the body.

Death, in a legal point of view, is either natural or civil; the former being the cessation both of physical life and of the legal rights which attach to it, the latter the cessation of the legal rights while the physical life remains.

**Death's-head Moth,** the European Acherontia Atropos, a hawk-moth with markings on the thorax resembling a skull or death's head, hence the name. It flies after sunset and emits peculiar sounds somewhat resembling the squeaking of a mouse, produced by the friction of the proboscis against the inner striated coatings of the palpi. It attacks beehives, scatters the bees, and steals the honey.



DEATH'S-HEAD MOTH AND CATERPILLAR.

**Death Tick,** a beetle, an inmate of human dwellings, which makes a ticking sound. This, being most readily heard in that stillness which attends times of sickness and anxiety, has become associated with superstitious notions and fears, being regarded as indicative of an approaching death.

**Death Valley,** a narrow valley between the Panamint and Funeral mountains, in California. It is traversed by the Amargosa river, which is usually a dry channel, though probably it was formerly full of water. The level of the valley is covered with salt, supposed to have been brought by the torrents from the surrounding desert and left on the evaporation of the water. Death Valley is considered to be the hottest and dryest place in the United States. A temperature of 122° F. has been observed.

**De Bary, Heinrich Anton,** a German botanist; born in Frankfort-on-Main, Jan. 26, 1831. He died in Strasburg, Jan. 19, 1888.

**Debenture,** in finance, a certificate or document signed by a legally authorized officer, as an acknowledgment of a debt due to some person; a deed or bond of mortgage on certain property for the repayment to a certain person of a certain sum of money advanced by such person, together with interest thereon at a certain stated rate.

**Deboe, William J.,** an American lawyer; born in Crittenden Co., Ky., in 1849; graduated at Ewing College, Illinois, and at the Medical Department of the University at Louisville; practised medicine for a number of years till his health failed; resumed the study of law; was admitted to the bar, and practised in Marion, Ky. He was a delegate to the Republican National Convention which met in Chicago and nominated Benjamin Harrison for the presidency in 1888, and was elected to the United States Senate in 1897–1903.

**Deborah,** a Hebrew seer or prophetess who lived in the time of the judges: by the aid of Barak delivered the N. tribes from the oppression of Jabin, and secured a peace of 40 years' duration. The triumphal ode (Judges v) attributed to her is a remarkable specimen of Hebrew poetry.

**Debreczen,** a town of Hungary, on the edge of the great central plain, 113 miles E. of Budapest. It is considered the headquarters of Hungarian Protestantism. Pop. (1920) 103,228.

**Debs, Eugene Victor,** an American socialist; born in Terre Haute, Ind., Nov. 5, 1855. He received a common school education and became a locomotive fireman. He was elected to the Indiana Legislature in 1885 and was later an official of the Brotherhood of Locomotive Firemen, and, from 1893 to 1897, president of the American Railway Union. He conducted the strike of 1893 in Chicago, and in 1894, while managing the larger strike on the Western roads, was charged with conspiracy, acquitted, but imprisoned for six months for contempt of court. He became a leader in the Socialist movement in 1897; was the candidate of the Social Democratic party in 1900 and of the Socialist party in 1904, 1908, 1912 and 1920 for President of U. S. See SOCIALIST PARTY.

**Debt,** that which is due from one person to another; that which one person is bound to pay or perform to another; due; obligation; liability. That which any one is obliged to do or to suffer.

In the United States originally imprisonment of debtors was adopted as a part of the common law, but at the present time imprisonment for debt, except in case of fraud, or of an absconding debtor, does not legally exist in any of the States. Most of the States have prohibited arrest or imprisonment for debt, while others, either by direct statutes prohibiting imprisonment for debt, or by poor debtors laws, or by insolvent laws, secure the same result.

**Debt, National,** on June 30, 1924, the interest bearing debt of the United States was $20,981,586,430 with annual charge of $940,602,913; non interest bearing debt, $239,292,747. Total gross debt, $21,251,120,427. Net public debt of $21,178,045,271. This gave a net debt per capita of $188.96.

The obligations of foreign governments held by the United States Treasury as to principal and unpaid interest were as follows: Total principal due from 19 countries, $10,559,929,727. Unpaid interest, $1,481,511,194.

**Decade,** is sometimes used for the number 10, or for an aggregate of 10. The books of Livy's Roman history are divided into decades. In the French Revolution, decades, each consisting of 10 days, took the place of weeks in the division of the year. The term is now usually applied to an aggregate of 10 years.

**Decalogue,** the Ten Commandments given by God to Moses on Mount Sinai. They were first introduced into the liturgy of the Church of England in the prayer-book of 1552.

**Decameron,** anything of 10 days' occurrence; also the title given to a collection of tales by Boccaccio, written in 10 parts, each part containing 10 stories.

**De Candolle, Augustin Pyrame,** a Swiss botanist; born in Geneva, Feb. 4, 1778; died April 9, 1893.

**Decapolis,** a country in Palestine, which contained 10 principal cities, on both sides of the Jordan. According to Pliny, they were Scythopolis, Philadelphia, Raphanæ, Gadara, Hippos, Dios, Pella, Gerasa, Canatha, and Damascus. Josephus inserts Otopos instead of Canatha.

**Decatur,** city and capital of Macon county, Ill.; on the Sangamon river and the Illinois Central and other railroads; 38 miles E. of Springfield; is in a corn, oat, and wheat section; has productive coal mines nearby; is the seat of Milliken University (Cumb. Presb.); and manufactures clothing, coffins, steam engines, and wood-work. Pop. (1920) 43,818.

**Decatur, Stephen,** an American naval officer; born in Sinnepuxent, Md., Jan. 5, 1779. He was of French descent, and obtained a midshipman's warrant in 1798. He saw some service against the French, and was commissioned lieutenant in the following year; and at the close of the French war in 1801 he was one of the 36 officers of that rank retained in the reduced strength of the navy. In the war with Tripoli (1801–1805), he gained great distinction, his brilliant achievement of boarding and burning the captured "Philadelphia" in the harbor of Tripoli, and then escaping under the fire of 141 guns, Nelson pronounced "the most daring act of the age." For this he received his commission as captain in 1804; in 1810 he was appointed commodore. In the war with England in 1812 he captured the frigate "Macedonian," but in 1814 he was obliged to surrender, af-

ter a resistance that cost him a fourth of his crew, to four British frigates. In 1815 he chastised the Algerines for their piracy, and compelled the dey to declare the American flag inviolable; and he obtained indemnities for violating treaty stipulations from the Dey of Tunis and the Pasha of Tripoli. He was appointed a Navy Commissioner in 1816, and was killed in a duel by Commodore James Barron, near Bladensburg, Md., March 22, 1820.

**Deccan,** a term, rather of historical interest than of actual use, applied to the peninsula of Hindustan to the S. of the Vindhya Mountains, which separate it from the basin of the Ganges.

**December,** the last month of the year. In the old Roman calendar, before the time of Julius Cæsar, the year began with March, and that which is now the 12th was then the 10th month; hence the name (decem "10"). Our Saxon ancestors called it Mid-winter-month and Yule-month.

**Decemvir,** one of the body of 10 magistrates, in whom was vested the sole government of Rome for a period of two years, from B. C. 449 to B. C. 447. The brutal and licentious conduct of one of the number, Appius Claudius, caused their downfall in the latter year.

**Deception Island,** a volcanic island belonging to the South Shetland group in the Antarctic Ocean, directly S. of Cape Horn. Amid its ice-covered rocks lies a crater-lake, five miles in circumference, surrounded by hot springs.

**Deciduous Trees,** those which annually lose and renew their leaves. The greater part of the trees and shrubs of temperate regions are deciduous; but within the tropics the forest retains always its luxuriance of foliage, except in countries where the dry season is extremely marked. Trees not deciduous are called evergreen.

**Decimal Arithmetic,** the common system of arithmetic, in which the figures represent a different value, progressing or decreasing by tens; the value increasing tenfold for each place nearer to the left hand, and decreasing tenfold for each place nearer the right hand. Also that part of the science of numerical calculation which treats of decimal fractions.

**Decimal Fraction,** a fraction whose denominator is a decimal or power of 10.

**Decimal System,** the name given to any system of weights, measures, or money in which the unit is always multiplied by 10 or some power of 10 to give a higher denomination, and divided by 10 or a power of 10 for a lower denomination. This system has been rigidly carried out in France, and the principle is observed in the coinage of the United States, Belgium, Italy, Spain, Portugal, and other countries.

**Decimation,** the selection of the 10th man of a corps of soldiers by lot for punishment, practised by the Romans. Sometimes every 10th man was executed; sometimes only one man of each company, the 10th in order. The term is frequently used in a loose way for the destruction of a great but indefinite proportion of people.

**Deck,** a horizontal platform or floor extending from side to side of a ship, and formed of planking supported by the beams. In ships of large size there are several decks one over the other. The quarter-deck is that above the upper-deck, reaching forward from the stern to the gangway.

**Decken, Karl Klaus von der,** a German African traveler; born in Kotzen, Mark of Brandenburg, Aug. 8, 1833; was murdered by a Somali on Sept. 25, 1865, while exploring the east coast of Africa.

**Declaration.** (1) That part of the process or pleadings in which a statement of the plaintiff's complaint against the defendant is set forth, with the additional circumstances of time and place when and where the injury was committed, where these are requisite. (2) A simple affirmation allowed in certain cases to be taken instead of an oath or solemn affirmation. (3) The statement made by a prisoner on being arrested on suspicion of a crime, which is taken down in writing.

**Declaration of Independence,** a document drawn up by a committee of the American Congress, consisting of Thomas Jefferson, of Virginia; John Adams, of Massachusetts; Roger

Sherman, of Connecticut; Robert R. Livingston, of New York; and Benjamin Franklin, of Pennsylvania. A draft was reported by this committee on June 28. On July 2 a resolution was adopted declaring the colonies free and independent States, and on July 4, the Declaration of Independence was agreed to, engrossed on paper, and signed by John Hancock, President. It was afterward engrossed on parchment and signed by the representatives of the States. The independence of the United States was acknowledged by France, Jan. 16, 1778, and by Holland, April 19, 1782; and provisional articles of peace were signed by England, Sept. 3, 1782.

**Declaration of Indulgence,** a declaration or proclamation issued by Charles II. in 1672, professedly to favor the Nonconformists, in giving them liberty to adopt and practise their own methods of worship, which had been curtailed by the Conventicle and Five Mile Acts. Parliament, however, suspecting that its real object was to benefit the Roman Catholics, passed in the following year the Test Act.

**Declaration of Rights,** a declaration drawn up by Parliament, and presented to William III. and Mary on their acceptance of the Crown of England, 1689. In it Parliament claimed the right of Englishmen to keep arms for their own defense; that the election of members of Parliament ought to be free; that no excessive fines or unusual punishments should be inflicted; that money should not be raised and a standing army must not be raised or kept up in times of peace without the consent of Parliament.

**Declaration of War,** a public proclamation by the State in which it declares itself to be at war with another power. As a rule such declarations are very brief, merely reciting the assumed causes and stating the fact. As an example the declaration of war by the United States against Germany, on April 4, 1917, was in the form of a resolution adopted by the United States Congress, of which the following is the essential part:

"*Whereas*, The Imperial German Government has committed repeated acts of war against the Government and the people of the United States of America; therefore, be it

"*Resolved*, by the Senate and House of Representatives of the United States of America in Congress assembled, that the state of war between the United States and the Imperial German Government, which has thus been thrust upon the United States, is hereby formally declared." See also APPENDIX: *World War*.

**Declination,** in astronomy, the distance of a heavenly body from the celestial equator (equinoctial), measured on a great circle passing through the pole and also through the body.

**Declinometer,** an instrument for determining the magnetic declination, and for observing its variations, especially those due to magnetic storms.

**Decomposition,** the rather comprehensive term applied to the breaking up of complex substances or substances of delicate stability, into others which are less complex or more stable. Such breaking up is very familiar in many chemical changes, and may result from increase of temperature, the action of light, the action of ferments and micro-organisms, etc.

**Decorated Style,** the second style of Pointed (Gothic) architecture.

**Decoration Day,** a day set apart for decorating the graves of soldiers and sailors who fell in the American Civil War (1861–1865) and in other wars. State Legislatures have designated a given day a legal holiday for this purpose, and the President and governors unite in recommending the observance of the same day (May 30), now known as "Decoration Day," in nearly every State of the Union. In the Southern States various days in April are set apart for decorating the graves of the Confederate dead, and the name "Memorial Day" is more commonly used there than Decoration Day.

**Decorations,** the badges, medals, and ribbons of any order of nobility or merit. The most noted are those of the Order of the Garter, of the Legion of Honor, of the Loyal Legion, and the several European decorations bestowed by sovereigns. American citizens holding office under the United States government are not permitted

to accept decorations from foreign rulers without consent of Congress.

**Decorative Art,** that form of art that has for its purpose the appropriate adornment of some utilitarian object, thereby adding to its beauty, but not to its usefulness.

**De Costa, Benjamin Franklin,** an American clergyman, editor, and historian; born in Charleston, Mass., July 10, 1831. He graduated at the Concord (N. H.) Biblical Institute; from 1861-3 was a chaplain of the United States army; became editor of "The Episcopalian," and other journals, at the same time being rector of a New York Episcopal church; and in 1884 founded the White Cross Society. In 1899 he joined the Roman Catholic Church. He died November 4, 1904.

**De Coster, Charles,** a Belgian author; born in 1827; died 1879. His chief work, descriptive of Flemish life, is "La légende de Ulenspiegel."

**Decoy,** a place or contrivance into which wild birds are lured, in order to be snared, or shot.

**Decree,** in general, an order, edict, or law made by a superior as a rule to govern inferiors. In law it is a judicial decision or determination of a litigated cause.

**Decree Nisi,** literally, a "decree unless," in New York State and in England, is the decree of divorce issued by the court on satisfactory proof being given in support of a petition for dissolution of marriage; it remains imperfect for several months, and is then made absolute, "unless" sufficient cause is shown why it should not be made so. If within the time appointed good reason can be shown for such a proceeding, the decree nisi will be reversed. Rhode Island has recently adopted a similar law.

**Decrepitation,** the crackling noise which several salts make when suddenly heated, accompanied by a violent exfoliation of their particles, due to the sudden conversion into steam of the water which is mechanically inclosed between the solid particles of the body; or to the unequal expansion of the laminæ of which the mineral is composed in consequence of their being imperfect conductors of heat. The true cleavage of minerals may be often detected in this way, for they fly asunder at their natural fissures.

**Decretals,** a general name for the Papal decrees, comprehending the rescripts (answers to inquiries and petitions), decrees, mandates (official instructions for ecclesiastical officers, courts, etc.), edicts (Papal ordinances in general), and general resolutions of the councils.

**Dedham,** town and capital of Norfolk county, Mass.; on the Charles river and the New York, New Haven and Hartford railroad; 9 miles S. W. of Boston, of which it is a popular place of residence. Fisher Ames was born here. Pop. (1920) 10,792.

**Deduction,** in logic, as opposed to induction, is the method of reasoning, from generals to particulars, as the latter is from particulars to generals.

**Deed,** an instrument in writing or in print, or partly in each, comprehending the terms of a contract or agreement, and the evidence of its due execution between parties legally capable of entering into a contract or agreement.

In the United States, the formalities required for the transfer of real estate are governed by local laws. Generally throughout the States, signing, sealing, attestation, acknowledgment, and delivery are the essential requisites of a valid deed of conveyance. The usual form of attestation being "signed, sealed, acknowledged, and delivered in the presence of us witnesses," then follow the names of the subscribing witnesses. The grantor must himself sign the deed, or if it is signed by his agent he must adopt the signature as his own in the presence of the subscribing witnesses and the commissioner or other qualified officer. A deed takes effect from the date of actual delivery or the date of record. Everywhere in the United States it is the law that deeds of conveyance must be recorded either in the proper office of the county in which the land lies — or if the conveyance be by grant or letters patent from the State or United States, the record must be made in the land office of the State or United States.

**Deems, Charles Force,** an American clergyman and writer; born in Baltimore, Md., Dec. 4, 1820. From

1866 to his death he was pastor of the Church of the Strangers of New York city, and was widely noted as editor and author. He died in New York city, Nov. 18, 1893.

**Deep-sea Exploration,** that branch of thalassography which investigates the depths of oceans, seas or lakes, determines the nature and distribution of the organic life there to be found, the temperature, constitution and specific gravity of the water at varying distances from the surface, the causes and characteristics of ocean currents, the geological changes in the way of gradual or rapid upheaval or subsidence caused by volcanic action and the formation of atolls and other islands.

The greatest reliable depth that has ever been attained by sounding was that of 5,269 fathoms by the United States "Nero" in 1899, at a point about 70 miles to the S. E. of Guam, surpassing the depths sounded by "Peguin" in the South Pacific in 1896 (5,022, 5,147, and 5,155 fathoms). The British "Challenger" made her greatest sounding (1875) 4,475 fathoms.

**Deer,** a beautiful and well-known quadruped, distinguished from the antelopes by their horns being solid and deciduous, that is, falling off annually, and again renewed of a larger size than in the preceding year. These horns or antlers always exist on the head of the male, and sometimes on that of the female.

The moose or elk is perhaps the only deer whose general appearance can be called ungraceful, or whose proportions at first sight impress the beholder unfavorably. Its large head terminates in a square muzzle, having the nostrils protruded over the sides of the mouth; the neck which is furnished with a short, thick mane, is not longer than the head, which, in the males, is rendered still more cumbrous and unwieldy by large palmated horns; under the throat is an excrescence, from which issues a tuft of long hair; the body which is short and thick, is mounted on tall legs, giving a very ungainly aspect to the animal, which is not diminished when it is in motion, as its gait is a sort of shambling trot, very efficient, however, from the great length of its limbs. The moose inhabits the N. parts of both America and Europe.

The reindeer is spread over all the habitable parts of the Arctic regions and the neighboring countries, in Europe being found in Norway and Sweden, more especially in Finmark and Lapland, in Northern Russia, nearly the whole of Siberia, and in North America as far S. as the latitude of Quebec. It occurs also in Spitzbergen, Greenland, and Newfoundland. They have long been domesticated, and their appearance and habits have been frequently described. Their size varies much according to the locality, those in the more polar regions being the largest; 60 and 400 pounds are said to be the extremes of weight. In winter the hair is grayish brown, in summer dark sooty brown. The American reindeer, or caribou, is less perfectly known; it has, however, so strong a resemblance in form and manners to the Lapland deer that it has always been considered to be a variety of the same species. The American Indians have never profited by the docility of this animal to aid them in transporting their families and property, though they annually destroy great numbers for their flesh and hides. There appear to be several varieties of this useful quadruped peculiar to the high N. regions of the American continent.

The Virginia deer is found in all parts of North America, up to 43° N. latitude. Its color varies with the season. In spring it is reddish-brown, in autumn slaty-blue, and in winter dull-brown. It is good hunting and eating.

The stag or red deer is a native of the temperate portions of Europe and Asia. An American representative of the European stag is the wapiti or Canada stag. This deer is at the shoulder from 4 feet 4 to 4 feet 8 inches, the superiority of bulk appearing chiefly in the magnitude of the body. The wapiti lives in herds, varying in number from 10 or 20 up to several hundreds. They feed on grass, the young sprouts of trees, lichens, and in summer on aquatic plants which they seek while sheltering themselves in the water from the bites of flies. They are good swimmers and swift runners, throwing their heads back so that the

horns touch their shoulders as they bound through the forest.

The fallow deer is smaller than the stag, being about 3 feet high at the shoulder, and is easily distinguished from it by its spotted coat, longer tail, and palmated horns. Fallow deer are indigenous to Southern and Central Europe and Asia, but in Great Britain they exist only in a semi-wild state.

The roebuck is common enough in the northern half of Scotland, but in the rest of the island is rare. It is smaller than the fallow deer, being about 2 feet 3 inches at the shoulder, and its horns are comparatively small and little branched. The color is bright reddish in summer, the under parts white.

**Deerfield,** a town of Franklin co., Mass.; on the Connecticut river, and the Boston and Maine and the New York, New Haven and Hartford railroads; 33 miles N. of Springfield. The town was the scene of several contests with the Indians in colonial times. Among them were the "Bloody Brook Massacre" (1675) and the burning of the village by the French and Indians under De Rouville (1703). Pop. (1920) 2,803.

**Deergrass,** or **Meadow Beauty,** a genus of an Asiatic plant found chiefly in New England. It is noted for the beauty of its flowers, which have bright purple petals, and thrives best on meadow land. It is said that there are but eight species of the order in the United States.

**Deermouse,** a small rodent found in abundance in this country. Its fur shows various brownish or grayish tints above, while the lower surface and feet, up to the wrists and ankles, are snow-white. The tail, which varies considerably in length, is generally white beneath. The length of the head and body is about three inches.

**Defamation,** the act of defaming or slandering; the false and malicious uttering of slanderous words with a view to damage the character, reputation, or business of another.

**Default,** a failure to appear in any court on the day assigned; especially applied to a defendant when he fails or neglects to plead or put in his answer in the time limited. In such cases the plaintiff is entitled to sign judgment against him, which is called judgment by default, and the defendant is said to suffer judgment by default.

**Defendant,** in law, the party against whom a complaint, demand, or charge is brought; one who is summoned into court, and defends, denies, or opposes the demand or charge, and maintains his own right. The term is applied if the party admits the claim.

**Defender of the Faith,** a title belonging to the King of England, as Catholicus to the King of Spain, Christianissimus to the King of France, etc. Leo X. bestowed the title of Defender of the Faith on Henry VIII. in 1521, on account of his book against Luther, and the title has been used by the sovereigns of England ever since.

**Defenders,** a Catholic association in Ireland (1784–1798), the opponents of the Peep o' Day Boys.

**Defilading,** that branch of the science of fortification, the object of which is to determine, when the intended work would be commanded by eminences within range, the directions or heights of the lines of rampart or parapet, so that the interior of the work may not be incommoded by a fire directed to it from such heights.

**Deflection,** in navigation, the departure of a ship from her true course; in optics, a deviation of the rays of light toward the surface of an opaque body.

**Defoe, Daniel,** an English writer; born in London in 1661. In 1719 appeared the most popular of all his performances, "The Life and Surprising Adventures of Robinson Crusoe," the favorable reception of which was immediate and universal. He died in London, April 26, 1731.

**De Fontaine, Felix,** an American journalist; born in Boston, Mass., in 1832. The first statement given to the North, of the attack on Fort Sumter, was written by him; and he was correspondent of the Charleston "Courier" from the principal battlefields during the Civil War. Subsequently he went to New York city, and was connected with the "Herald" most of the time until his death. He died in Columbus, S. C., Dec. 11, 1896.

**De Forest, Lee,** born in 1873, at Council Bluffs, Iowa. An American inventor. Studied at Yale Sheffield Scientific School. In 1902 he became vice-president of the American De Forest Wireless Telegraph Co. This was afterwards superseded by the United Wireless Telegraph Co. In 1913 he became vice-president of the Radio Telephone Co. He is one of the pioneer inventors in the wireless telegraph and telephone fields as well as perfecting and inventing hundreds of devices for radio which did much to perfect the science. His most important invention was the "Audion," a detector, oscillator and amplifier for trans-continental telephone communication. This invention has made possible long distance telephone inter-communication both by wire and wireless.

**Defregger, Franz,** a German genre painter of deserved popularity; born in Stronach in 1835.

**Degeneration,** a biological term used to describe those not unfrequent cases where an entire organism falls below the structural level of its young stages, or where an organ in the same way loses its fullness of function and becomes more or less atrophied, abortive, and simplified. Applied also to the loss or lack of virile qualities through personal excesses or unfortunate parentage.

**De Gerando, Joseph Marie Baron,** a French philosopher and statesman; born in Lyons in 1772. He died in 1842.

**Deggendorf,** a town of Lower Bavaria, on the Danube, which is here crossed by two bridges, 39 miles N. W. of Passau. Its church of the Holy Sepulcher is often visited by more than 30,000 pilgrims annually.

**De Giosa, Nicola,** an Italian musician; born in Bari, May 5, 1820. His opera, "Don Checco," is very popular in Italy. His 400 songs were widely sung. He died in Bari, July 7, 1885.

**Degree,** the 360th part of the circumference of a circle. A degree of latitude is the length along a meridian, such that the difference of latitude between its N. and S. ends is one degree — i. e., from the two positions the altitude of the same star is seen to differ by one degree.

**Degree,** in universities, a mark of distinction conferred on students, members, or distinguished strangers, as a testimony of their proficiency in the arts or sciences, or as a mark of respect, the former known as ordinary, the latter as honorary degrees. The degrees are bachelor, master, and doctor, and are conferred in arts, science, medicine, divinity, and music.

**De Haas, Maurice Frederick Hendrick,** an American marine painter; born in Rotterdam, Dec. 12, 1832. In 1857 he was made artist to the Dutch navy, and in 1859 he went to New York, where he lived till his death, Nov. 23, 1895. The subjects of his earlier pictures are chiefly from the English Channel and French coast. His best known American work is "Farragut Passing the Forts." He was elected an Associate of the National Academy in 1863, and an Academician in 1867, and was one of the original members of the American Society of Painters in Water Colors.

**Dehorning,** the practice of removing the horns of domestic cattle, to prevent injury during transportation, and to make vicious cattle docile.

**Dehra Doon,** a beautiful and fertile valley in the Meerut division of the Northwestern Provinces, Hindustan, at the S. W. base of the lowest and outermost ridge of the Himalaya.

**Deicide,** the putting to death of God in the person of our Lord; also one concerned in putting our Lord to death.

**Dei Gratia,** (by the grace of God), a formula which many European sovereigns add to their title, and which is taken from an expression of the apostle Paul in the New Testament.

**Deism,** the doctrines or tenets of a deist; the system of belief which admits the being of a God, and acknowledges several of His perfections, but denies not only the existence but the necessity of a divine revelation.

**Deist,** one who admits the being of a God, but denies the existence or even necessity of a divine revelation, believing that the light of nature and reason are sufficient guides in doctrine and practice; a believer in natural religion only; a freethinker.

A term applied in controversy which arose in England in the 17th

and 18th centuries, between those who believed and those who disbelieved in revelation; the latter, however, not occupying the atheistic standpoint, but accepting the existence of a God.

**De Kalb, Courtenay,** scientist and expert on Spanish-American affairs; born in Virginia in 1861. He explored the Amazon, Peru, and Central America. In 1898 was appointed prof. of mining, Queen's College, Ont.

**De Kalb, John Baron,** a French officer; born in Alsace, about 1732. He accompanied Lafayette to America in 1777; was appointed the same year Major-General in the American army; and joined the main force under Washington. In the battle of Camden, Aug. 16, 1780, he was at the head of the Maryland and Delaware troops, who maintained their ground till Cornwallis concentrated his whole force upon them. He fell, pierced with 11 wounds, in the charge upon his regiment before they gave way. He died three days after at Camden, where a monument, of which Lafayette placed the corner-stone, was erected to his memory in 1825.

**De Kay, Charles,** an American poet, grandson of Joseph Rodman Drake; born in Washington, D. C., July 25, 1848. His poems are mostly founded on themes from Oriental, classical, and literary history.

**Dekker, Eduard Douwes** a Dutch novelist, pseudonym "Multatuli"; born in Amsterdam, March 2, 1820. He spent several years in government service in the Dutch East Indies. He died in Nieder-Ingelheim, Feb. 19, 1887.

**Dekker, Thomas,** an English dramatist; born in London about 1570; died some time after 1637.

**De Koven, (Henry Louis) Reginald,** an American composer; born in Middletown, Conn., April 3, 1859. He was graduated at Oxford in 1879 and studied music in the leading cities of Europe. His operettas have had great success.

**De la Beche, Sir Henry Thomas,** an English geologist; born near London in 1796; died April 13, 1855.

**Delacroix, Eugene,** a French painter, chief of the Romantic school; born near Paris, April 26, 1799. In 1857 he was chosen by the Institute to fill the place of Delaroche. He died Aug. 13, 1863. He was an artist of great versatility; mythology, legend, history, and poetry by turns furnishing him with subjects for his brush.

**Delafield, Richard,** an American military officer: born in New York city, Sept. 1, 1798. He was graduated at the United States Military Academy in 1818 and immediately achieved distinction as a military engineer. He planned the defenses of Hampton Roads and New York city. In the Civil War he rendered invaluable service to the Government in the Engineers' Department, rising from the rank of lieutenant-colonel in 1861 to that of brevet Major-General in 1865. He retired the following year, and died in Washington, D. C., Nov. 5, 1873.

**Delagoa Bay,** in South East Africa; a large sheet of water separated from the Indian Ocean by the peninsula and island of Inyack. The bay stretches N. and S. upwards of 40 miles, with a breadth of from 16 to 20 miles, and forms the southern extremity of the Portuguese settlement of Mozambique. It is available for vessels of large tonnage, though the presence of shoals, banks, and flats, renders the navigation of the bay somewhat intricate.

**De Lancey, Edward Floyd,** an American historian; born in Mamaroneck, N. Y., Oct. 23, 1821. Wrote "Origin and History of Manors in the Province of New York," etc. D. 1905.

**Deland, Margaret Wade (Campbell),** an American poet and novelist; born in Allegheny, Pa., Feb. 23, 1857. Her verses, and domestic fiction, are very popular.

**Delane, John Thaddeus,** editor of "The Times," 1841-77; was born in London, 1817, and graduated at Oxford in 1839. He died in 1879.

**De La Rey, Jacob Hendrick,** Boer general, born 1849, was one of the most popular Boer leaders in the South African War, and one of the ablest opponents of the British.

**Delaroche, Hippolyte** (familiarly styled Paul), a French painter; born in Paris July 16, 1797. His signal merits consist in correct drawing brilliant and harmonious color, and great distinctness and perspicuity in treatment, rendering the story of his

pictures at once intelligible. His works are well known through engravings. He died in Paris, Nov. 4, 1856.

**De La Rue, Warren,** English scientist, inventor and miscellaneous writer, born in 1815; was widely known for his astronomical photographs, and for his inventions in connection with color-printing, oil refining, etc. He died in 1889.

**Delauny, Jules Elie,** a French figure and portrait painter; born in Nantes June 12, 1828. In 1856 he received the Grand Prix de Rome; the first-class medal at the Paris Exposition of 1878; and at that of 1889 was awarded the medal of honor. He was made an officer of the Legion of Honor and a member of the Institute. He died in Paris, Sept. 5, 1891.

**Delavigne, Jean Francois Casimir,** a French poet and dramatist; born in Havre April 4, 1793; died in Montmorency, Dec. 11, 1843.

**Delaware,** a State in the South Atlantic Division of the North American Union; bounded by Pennsylvania, Delaware river and bay, the Atlantic Ocean, and Maryland; area, 2,370 square miles; one of the original 13 States; number of counties, 3; pop. (1900) 184,735; (1910) 202,322; (1920) 223,003.

Delaware lies on a level plain, the highest elevation being less than 300 feet above the sea. The N. part is hilly, with a rolling surface, but below Newcastle the ground is flat and sandy and in some parts swampy. The principal streams are the Christiana and the Brandywine rivers. The Christiana is navigable for large steamers as far as Wilmington.

For eight or ten miles inland from Delaware Bay the soil is for the most part a rich clayey loam; but W. of this it is light and sandy, and productive when well fertilized. The swamps where reclaimed are also very productive. In them are extensive forests of cypresses and other evergreen trees, and shrubs of a semi-tropical character, as well as bog-oak, hackmatack, etc. The remainder of the State has been cleared of its forests and is under cultivation.

The governor is elected for a term of four years, salary $4,000 per annum; legislative sessions biennial. Delaware sends one Representative to Congress.

The public schools have an enrollment of 35,950 pupils, with 945 teachers and 475 school houses; value of all public school property $1,650,000. The leading religious denominations are the Methodist, Roman Catholic, and Presbyterian bodies. There are about 350 miles of steam railroads. A concrete motor highway completes a trunk line through the State. A gift of T. C. Du Pont.

History.— Delaware was named after Lord De la Ware, governor of Virginia, who sailed up the bay in 1610. The first settlement was made by the Dutch in 1631, and in 1638 a colony of Swedes and Finns built a fort on Christiana creek and called the country New Sweden. There was constant friction between the Dutch and Swedes until 1664, when all the Dutch settlements came under English rule. For over 20 years Delaware was part of Pennsylvania, known as the "three lower counties on the Delaware." The State became independent during the Revolution, and her soldiers, known as the "Blue Hen's Chickens," did admirable service during the war. Delaware was the first State to ratify the Federal Constitution, Dec. 7, 1787. Although a slave-holding State Delaware did not secede in 1861, but strongly supported the Union cause. Since 1865 the economic growth of the State has been remarkable, as shown by the development of railways, of the fruit industry, and the commercial and industrial rise of Wilmington.

**Delaware,** a river of the United States which rises in the Catskill Mountains in New York; separates Pennsylvania from New York and New Jersey, and New Jersey from Delaware; and empties into Delaware Bay. It has a course of about 300 miles, and is navigable for large vessels to Philadelphia, and for smaller craft to the head of tide-water at Trenton (155 miles).

**Delaware Bay,** an estuary or arm of the sea between the States of Delaware and New Jersey. At the entrance, near Cape Henlopen, is situated the Delaware Breakwater, which affords vessels a shelter within the cape. It was erected by the Federal government, and cost about $3,000,000.

**Delaware College,** founded at Newark, Del., in 1833, was closed from 1859 to 1870, when it received a Congressional land-grant. Its income is about $45,000.

**Delaware Indians.** See LENAPES.

**Delaware Water Gap,** a picturesque break in the Kittatinny Range of the Appalachian Mountains through which the Delaware River flows. It is a popular summer resort.

**Delaware,** or **Delawarr, Thomas West,** an American colonial governor, born in England. He succeeded his father as third Lord Delaware in 1602 and some years later was appointed governor of Virginia, arriving at his post in June, 1610. He died at sea, June 7, 1618.

**Delcasse, Theophile,** French statesman, b. Pamiers, Mar. 1, 1852. He became a journalist, parliamentary deputy, minister of the colonies, 1893, minister of foreign affairs, 1898, through successive ministries until 1905, when he resigned in conflict with the German policy towards Morocco. His career was distinguished by marked success.

**De Leon, Edwin,** author and diplomat; born in Columbia, S. C., 1828, died 1891; was diplomatic agent in Europe during the Civil War, and later United States Consul-General at Cairo.

**Delftware,** a kind of pottery originally manufactured at Delft, in Holland, in the 14th century. It was among the best of its day, being considered equal to the Italian in quality, but somewhat inferior in its ornamentation.

**Delhi,** a city of Hindustan, in the Punjab, capital of a division of the same name, and anciently of the Patan and Mogul empires; about 700 miles N. E. of Bombay, and about 960 miles N. W. Calcutta. It was at one time the largest city in Hindustan, covering a space of 20 square miles, and having a population of 2,000,000. It is now reduced to a circumference of 7 miles, and its population to 232,837 (1911). One of the most remarkable edifices in the city is the Great Mosque, a magnificent structure in the Byzantine-Arabic style, and considered by the Mohammedans the wonder of the world.

On the breaking out of the Indian mutiny in May, 1857, Delhi became the center of the operations of the rebels who flocked to it from all quarters. The nominal representative of the Great Mogul, who held the sovereignty of the place under British protection, joined cause with the rebels; and in addition to assuming the character of an independent potentate, gave his sanction to the massacres and atrocities perpetrated on the European residents. By the middle of June a British army under Generals Wilson and Nicholson was assembled in front of the city, and a siege commenced, which, from the smallness of the besieging force, was necessarily slow and protracted. It was brought to a successful termination on Sept. 20, when Delhi was entered by the British troops, and the nominal sovereignty heretofore possessed by the king was declared extinguished, and he himself, after being tried for the murders committed under his authority, was found guilty, and sentenced as a convict to perpetual banishment. A great part of the place was reduced to ruins in the mutiny and siege, but it has since recovered much of its former appearance, and has also been much improved in its sanitary condition. It was at a great durbar held in Delhi in 1877 that Queen Victoria was proclaimed Empress of India, and King Edward was proclaimed with even greater magnificence in 1902–3.

In 1911 Delhi was proclaimed the capital of India, and in 1912 the province of Delhi was created, consisting of a small enclave in the Punjab; area, 557 square miles; pop. (1911) about 390,000.

**Delilah,** a woman of the Philistines, beloved of Samson. She persuaded him to reveal to her the secret of his great strength, and when she learned that it lay in his long and thick hair, cut off his locks while he was asleep and then treacherously delivered him to his enemies.

**Delirium,** increased ideation ranging from simple confusion of thought to fixed delusion, accompanied by incoherence, restlessness, and frequently combined with some amount of unconsciousness, deepening at times into coma. It often occurs in many diseases; also from overwork.

**Delirium Tremens,** alcoholism, specially accompanied by delusions, from loss of cerebral power, with general disturbances of functions, depression, and debility, feeble but rapid action of heart, tremor and undecided muscular action, fear, and mental agitation, all indicative of the most depressed condition of all the vital functions.

**Delitzsch, Franz,** a German theologian; born in Leipsic, Feb. 23, 1813. In 1867 he became Professor of Theology at Leipsic. He died in Leipsic, March 4, 1890. His son, FRIEDRICH DELITZCH, born Sept. 3, 1850, has made a great reputation as an Assyriologist.

**Delivery,** in law (1) the delivery of a deed, or the handing of it over to the grantee, which is expressed in the attestation, "sealed and delivered," is one of the requisites to a good deed. A deed takes effect only from this delivery; for if the date be false or impossible, the delivery ascertains the time of it. A delivery may be either absolute, that is, to the grantee himself, or to a third person, to hold till some conditions be performed on the part of the grantee.

**Delmar, Alexander,** an American political economist; born in New York city, Aug. 9, 1836. He established the "Social Science Review" and was its editor in 1864–1866. He is the author of various books on economic subjects.

**De Lome, Enrique Dupuy,** a Spanish diplomatist; born in Valencia, in August, 1851; graduated in law at the University of Madrid; became first secretary of the Spanish legation in Washington in 1882, and minister to the United States in 1892 and 1895. In February, 1898, it was discovered by the authorities in Washington that he had written a letter to Senor Canalejas, a Spaniard of high rank who had been in the United States a short time previous supposably to make observations for the Spanish government. The letter, which followed Canalejas to Havana, and was probably abstracted from his apartments there by some friend of the insurgents, contained insulting and disparaging phrases regarding the President of the United States, and otherwise plainly showed that neither the writer nor the recipient of it believed that Spain was acting in good faith with the United States government. De Lome at first denied the genuineness of the letter, but it was proved beyond a doubt that he was the author, and he telegraphed his resignation to Madrid, Feb. 9, thus forestalling the request of the American minister there that he should be recalled. He died July 1, 1904.

**De Long, George Washington,** an American naval officer and Arctic explorer; born in New York city, Aug. 22, 1844. Graduating from the Naval Academy in 1865, he reached the grade of lieutenant-commander, and perished of cold and exposure while in command of the "Jeannette" Expedition in 1879–1881. His journals have been published, entitled "The Voyage of the Jeannette" (1883); and the story of the search for the survivors is told in Melville's "In the Lena Delta" (1884). He died in Siberia, Oct. 30, 1881.

**Delos, Cynthus,** or **Ortygia** (now called SAILLES, SAYLLI, DELO, or DELI), is the smallest of the Cyclades, at the N. of Naxos, and was famous throughout antiquity as having been the birthplace of Apollo and Diana, and further as being consecrated to the worship of the first-named deity. The temple of Apollo at Delos, according to Plutarch, was one of the stateliest buildings in the universe. The decline of Delos dates from the Mithridatic War, when it was laid waste by one of the generals of Mithridates. It is now a mere heap of ruins.

**Delphi,** or **Delphos** (now CASTRI), a small town of ancient Phocis, in a valley to the W. of Mount Parnassus, was the seat of the most famous of all the oracles of Apollo. From its favorable position this oracle came to be consulted, not only by the Greeks, but even by the neighboring nations, until the time of Constantine the Great, who removed the sacred tripods to adorn the hippodrome of his new city when the responses ceased to be delivered.

**Delsarte, Francois Alexandre Nicolas Cherie,** a French educator; born in Solesmes, Dec. 19, 1811. He was author of several melodies and romances, but his chief work was the elaboration of a system of dramatic

expression, by which the voice and entire action of the body were trained by fixed rules. He aimed to make elocution a science. His system, at least in part, has of late been gaining adherents among elocutionists. He died in Paris, July 19, 1871.

**Delta,** the name of the fourth Greek letter, corresponding with the English d. As a capital it is formed in the shape of an equilateral triangle. Originally applied to the triangle-shaped island formed by deposits between the two mouths of the Nile; afterward applied to other similarly shaped tracts formed at the mouths of large rivers by two or more diverging branches.

**Deluge,** a general overflowing of water, or inundation; specifically, the general inundation or flood in the time of Noah. The great flood or cataclysm by the scriptural story stated to have been sent in punishment of flagrant sins committed by the antediluvians, all of whom were drowned with the exception of Noah, his wife, his three sons, Japheth, Shem, and Ham, with their three wives, in all eight persons, who were saved in an ark which the patriarch was commanded to build.

**Deluge Tablet,** or **Deluge Tablets,** the name given to a tablet or tablets (the 11th of the Izdubar Legends) inscribed with cuneiform writing, which being translated were found to contain the Chaldean account of the deluge.

**Delundung,** the weasel-cat; a small quadruped inhabiting the vast forests of the E. extremities of Java and Malacca. It is of pale yellowish-white color, with elegantly-marked stripes and bands of a deep brown. It is allied to the civets, but is destitute of a scent-pouch.

**Demagogue,** a ringleader of a faction, or of the rabble; a popular or factious orator; a party leader; a teacher of sedition. In its original acceptation, this word was considered an honorable designation; but it is now almost invariably used in a bad sense.

**Demand and Supply,** in political economy, demand has reference to the quantity of goods asked for in the market, and supply has reference to the quantity of goods offered. The laws of demand and supply may be thus stated: when the demand exceeds the supply, competition grows stronger among the buyers, and prices rise, and when the demand falls short of the supply, competition grows stronger among the sellers, and prices fall. A rise in prices tends to encourage production, while a fall in prices tends to discourage it. The result is that demand and supply continually tend to equilibrium. Under such a system it is assumed that buyers and sellers or producers and consumers are free to fix their own prices. In other words, the laws of supply and demand prevail under a system of free competition.

**Demeter,** a Greek deity, representing the maternal or fertilizing principle in nature. Called Ceres by the Romans.

**Deme,** a subdivision of ancient Attica and of modern Greece. The word demos early came to be applied to the commons, and survives significantly in our democracy and demagogue.

**Dementia,** in common parlance and even in legal language a word synonymous with insanity. Medically it is applied to those cases of unsound mind which are characterized by a total loss of the faculty of thought, or by such an imbecility of intellect that the ideas are extremely incoherent, there being at the same time a total loss of the power of reasoning.

**Demesne,** or **Domain,** in law, a manor-house and the land adjacent or near, which a lord keeps in his own hands or immediate occupation, for the use of his family, as distinguished from his tenemental lands, distributed among his tenants.

**Demidov,** or **Demidoff,** a wealthy and influential Russian family, whose head was an armory-founder at Toula. This Demidoff was intrusted by Peter the Great with the business of casting the cannon for that prince's numerous warlike expeditions. He actively seconded all the exertions of the czar, and in 1725 discovered the mines of Kolyvan, the working of which speedily enriched him. He left a son, NITIKA, and several grandsons, who distinguished themselves in the same career as their progenitor, and amassed colossal fortunes. The best known of these are PROKOP DEMIDOFF, who worked with great profit the iron,

copper, and gold mines of the Ural Mountains; born at Moscow about 1730; NIKOLAI NIKITICH, a zealous philanthropist, who introduced into his country several branches of industry, founded establishments of public utility, and carried to a great state of perfection the working of mines. He had an annual income of more than $1,000,000. His last years he passed in France and Italy, enjoying the society of learned men, and heaping benefits on all around him.

**De Mille, Cecil Blount,** born 1881. American producer of motion pictures. An actor, playwright and theatrical director. Also produced many successful plays for David Belasco.

**De Mille, Henry Churchill,** an American playwright; born in North Carolina, about 1853; was graduated at Columbia College, and was by turns preacher and teacher till 1882, when he became examiner of plays at the Madison Square Theater, and later for a short time an actor. He died in Pompton, N. J., Feb. 10, 1893.

**De Mille, James,** a Canadian novelist; born in St. John, N. B., August, 1837; graduated at Brown College in 1854. He was Professor of History and Rhetoric in Dalhousie College, Halifax, from 1865 until his death. Died in Halifax, N. S., Jan. 27, 1880.

**Demi-monde,** an expression first used by the younger Dumas in a drama of the same name (first performed in 1855), to denote that class of female adventurers who are only half-acknowledged in society; popularly, disreputable female society; courtesans.

**Demise** (a laying down), in law, a grant by lease; is applied to an estate either in fee-simple, fee-tail, or for a term of life or years. As applied to the crown of England, demise signifies its transmission to the next heir on being laid down by the sovereign at death.

**Democracy,** that form of government in which the sovereign power is in the hands of the people collectively, and is exercised by them either directly or indirectly through elected representatives or delegates.

**Democratic Party,** one of the two chief divisions into which the voters of the United States are politically associated, first opposed to the Whigs, then to the Republicans.

The Cleveland View.— The complete evolution of the Democratic party may be said to date from the accession of Andrew Jackson to the presidency, though its fundamental principles were enunciated by Thomas Jefferson. The political features of Jackson's administration were the opposition to the United States Bank, the denial of the right of any State to nullify the laws of Congress, and the excitement over the tariff question. In 1836 through the influence of Jackson, Martin Van Buren was elected President, and during his administration the prestige of the Democratic party began to wane. In 1837 the country went through a severe commercial panic. Credit, speculation and banking had been carried to extreme limits and disaster followed. For this state of affairs the administration was held responsible. The election of 1840 was a revolution and in the choice of General Harrison by the electoral vote of 234 to 60 the Democratic party, after an ascendency of its principles entailing 40 years of power, was forced to retire. But the Whig triumph was shortlived. General Harrison died one month after his inauguration and John Tyler, who had been nominated for Vice-President to conciliate Virginia, succeeded to the presidential chair. All his life he had held and advocated Democratic doctrines, especially the opposition to the United States Bank, a protective tariff, and internal improvements by the general government. On his accession he continued the cabinet of his predecessor, Daniel Webster being Secretary of State; but after two successive vetoes of the "Fiscal Bank of the United States" bill, his cabinet left him, Mr. Webster remaining only till the conclusion of the Webster-Ashburton treaty, and his administration became essentially Democratic.

In 1844 James K. Polk was elected President, after a bitter and exciting contest, over Henry Clay. The annexation of Texas, which was urged by the Democratic party, was the great question in determining this election, and was accomplished March 1, 1845, three days before the inauguration of Mr. Polk. This led to a war with Mexico, which was declared May

12, 1846. At its successful conclusion not only was the Rio Grande established as the boundary of Texas, but all New Mexico and Upper California were relinquished to the United States. In March, 1820, an act known as the Missouri Compromise had been passed, forbidding the introduction of slavery in any of the States formed from the Louisiana Cession N. of 36° 30′. On Aug. 8, 1846, the rejection of the so-called Wilmot Proviso by the Senate, which provided "That as an express and fundamental condition to the acquisition of any territory from the Republic of Mexico by the United States . . . neither slavery nor involuntary servitude shall ever exist in any part of said territory," became the starting-point of the Free Soil party in 1848. Mr. Wilmot, the mover, was a Democrat. The popularity of General Taylor caused the defeat of Lewis Cass in the election of 1848, and the Democratic party went out of power till 1853, when Franklin Pierce became President. In 1856 it elected James Buchanan President and John C. Breckenridge Vice-President. At the convention held in Charleston, S. C., April, 1860, the slavery issue caused a disruption of the party, the slave section nominating John C. Breckenridge, and the free, Stephen A. Douglas, and, on Mr. Lincoln's election, it lost the supremacy which it had held with little interruption for 60 years. It had, however, a vigorous life, and contested hotly every presidential election, its unsuccessful candidates being George B. McClellan, 1864; Horatio Seymour, 1868; Horace Greeley, 1872; Samuel J. Tilden, 1876; and Winfield S. Hancock, 1880. In 1884 the party elected its candidate for the presidency, Grover Cleveland. In 1888, Mr. Cleveland having been renominated, the party was defeated. In 1892 Mr. Cleveland again became the nominee of the party against the sharp and critical opposition of the Democratic organization of his own State (New York). In the nominating convention the solid vote of New York, under the unit rule, was cast for Mr. Hill, then United States Senator, against Mr. Cleveland; but the West, the South, and largely New England voted for the latter.

In the first year of his second administration Mr. Cleveland called a special session of Congress for the purpose of repealing the law compelling the monthly purchase of silver by the government; and this was accomplished against the determined opposition of many prominent Democrats. Dissensions soon therefore arose in the party over the tariff, centering around the so-called Wilson Bill. The opponents of the administration, led by Gorman of Maryland, Brice of Ohio, and others, succeeded in amending the bill to an extent deemed so undemocratic that the President could give it but a qualified approval, and it became a law without his signature. The necessity of issuing bonds for the purpose of maintaining the gold reserve, thus increasing the public debt, and the adoption of silver free coinage in the platform of 1896 overthrew the party, its candidate, William J. Bryan, being defeated by William McKinley, for whom many Democrats in favor of sound money and the gold standard voted.

GROVER CLEVELAND.

The Bryan View.— Some of the claims of the so-called Free Silver Wing of the Democratic party were thus formulated in an article by William J. Bryan in the "North American Review," in 1900, and are here reproduced with that gentleman's permission. Mr. Bryan wrote:

"The Declaration of Independence set before the world four great truths which were declared to be self-evident: first, that all men are created equal; second, that they are endowed with inalienable rights, among which are life, liberty and the pursuit of happiness; third, that governments are instituted among men to secure these rights; fourth, that governments derive their just powers from the consent of the governed.

"Upon these four pillars, quarried from the mountain of eternal truth, all free government must forever rest.

"Then followed the War of the Revolution, with its sacrifices and its sacred memories, with its trials and its triumphs, establishing a government dedicated to liberty.

"But before a generation had passed, wealth, represented by Hamilton, began to assert itself, and contempt for the rights of man and distrust of the people themselves began to be manifest. Jefferson, the author of the Declaration of Independence,

undertook the task of arousing the friends of human rights and civil liberty, and he led them to victory in 1800. The impetus given to American Democracy by its first success in the forum of politics carried it through several presidential terms.

"During Jackson's administration another battle was fought between the capitalistic classes and the people at large. The National bank marshalled an almost irresistible army of financiers, business men, newspapers and politicians in defense of a gigantic monopoly.

"Jackson sounded the alarm, rallied the hosts of Democracy, and, in a contest seldom, if ever, equalled in bitterness, won the second peaceful victory for human rights against inhuman greed. . . .

"For many years after the close of the Civil War the Republicans held undisputed control of the Federal government, and an appeal to the prejudices and passions aroused by that great conflict was sufficient answer to any criticism or complaint coming from the party out of power. During this period class legislation became the order of the day, and wealth not only sought favors from the government but secured exemption from just burdens. When war taxes were to be reduced, the taxes bearing upon the rich were taken off first. When the income tax was repealed, Senator Sherman of Ohio, placed his protest on record.

"High duties were placed upon the necessities of life on the ground that infant industries required assistance, with the result that the owners of the aided industries grew rich, while home-owning decreased and tenancy increased among the consumers.

"Railroads were constructed upon a plan which permitted watered stock, fictitious capitalization and the over issue of bonds, with the result that the patrons of the roads became the victims of extortionate rates and the manipulators of the roads became suddenly and enormously rich.

"Under the euphonious plea that public credit would be strengthened thereby, the terms of government contracts were altered in the interest of the bondholders. Then, in 1873, a change was made in the standard money, a change so indefensible that nearly every public man denied any knowledge of the purpose of the act. For 23 years following the passage of that act every party pledged itself to restore the double standard, but the financiers succeeded in controlling the dominant party and thus maintained the gold standard in spite of popular protest.

"In 1896 the Democrats refused to be any longer parties to the duplicity and took an open and unequivocal position in favor of the immediate restoration of bimetallism by the independent action of this country at the present legal ratio. This positive and definite platform was necessary because of the cunningly devised evasions and ambiguities which had been written into the platforms of the two leading parties. The Republican leaders, on the other hand, continued their policy of deception, and held out to the Republican bimetallists of the West the delusive hope of an international agreement, while they openly promised the Eastern believers in monometallism that the gold standard would be maintained until an international agreement could be secured, and secretly assured them that they meant forever.

"After the election the administration adopted a double standard method of dealing with the subject. A commission was sent to Europe to plead for international bimetallism, while a gold standard Secretary of the Treasury was openly at work in this country defending monometallism. In 1896 the money question occupied by far the greater portion of public attention. Since 1896 the same sordid doctrine that manifested itself in the gold standard has manifested itself in several new ways and today three questions contest for primacy — the money question, the trust question and imperialism. There are several other questions of scarcely less importance, but the lines of division upon these run practically parallel with the lines which separate the people upon the three greater ones. If a man opposes the gold standard, trusts, imperialism — all three — the chances are a hundred to one that he is in favor of arbitration, the income tax and the election of United States Senators by a direct vote of the people, and is opposed to government by injunction and the black-list. If a man favors the

gold standard, the trust and imperialism — all three — the chances are equally great that he regards the demand for arbitration as an impertinence, defends government by injunction and the black-list, views the income tax as a 'discouragement to thrift' and will oppose the election of Senators by the people as soon as he learns that it will lessen the influence of corporations in the Senate. When a person is with the Democrats on one or two of these questions but not on all, his position on the subordinate questions is not so easily calculated."

WILLIAM J. BRYAN.

In 1896, 1900, and 1908 the Democratic Party appealed to the country under the leadership of William J. Bryan, and in 1904 under that of Judge Alton B. Parker, and in each contest was defeated by the Republican candidates; William McKinley (1896 and 1900), Theodore Roosevelt (1904), and William H. Taft (1908). In 1910 it made heavy gains in many States and secured control of the National House of Representatives, with the Speakership. Early in 1912, Woodrow Wilson, Governor of New Jersey and former president of Princeton University, was put forward by his friends as a candidate for the party nomination for the Presidency. He made an active canvas throughout the country, speaking for high ideals in political life and administration and for tariff reform, and at the Democratic National Convention at Baltimore, Md., on July 2, he was nominated by a vote of 990 to 96 on the forty-sixth ballot. On the following day, Governor Thomas R. Marshall, of Indiana, was unanimously nominated for Vice-President. On Nov. 5, 1912, Governor Wilson was elected, defeating President Taft and Theodore Roosevelt. In Nov., 1920, Nominee James M. Cox was defeated by Republican Candidate Warren G. Harding; in 1924 Nominee John W. Davis was defeated by Republican Candidate Calvin Coolidge.

**Demosthenes,** a famous orator of Greece; the son of a sword-cutler in Athens, where he was born in 382 (according to some in 385 B. C.) An unyielding patriot, he resolutely opposed the destruction of Grecian liberties by Macedonia, and when there was no longer hope for his country, he took poison. He died, according to the general account, in 322 B. C., at the age of 60 or 62 years.

**Demulcents,** medicines which tend to soothe or protect the mucous membranes against irritants. They are generally composed of starch, gum, albuminous or oily substances largely diluted.

**Demurrage,** in maritime law, (1) the time during which a vessel is detained by the freighter beyond what is named in the charter-party in loading or unloading. A vessel thus detained is said to be on demurrage. (2) The compensation or allowance made by the freighter of a vessel for such delay or detention. Demurrage must be paid in every case except when the delay is caused by tempestuous weather, any fault of the owner, captain, or crew of the vessel, or detention by an enemy. The word is also applied to a similar compensation or allowance payable for delay in loading or unloading railway cars beyond a certain specified period allowed for the purpose.

**Demurrer,** in law, a stop at some point in the pleadings, and a resting of the decision of the cause on that point; an issue on matter of law.

**Denarius,** a Roman Silver Coin, equivalent to about 16 or 17 cents of United States money. The name was also given to a gold coin struck during the empire. It passed for 25 silver denarii.

**Denatured** or **Denaturized Alcohol,** alcohol made unfit for drinking, by the addition of either wood alcohol, pyridin, sulphuric ether, benzole, or animal oil. Its use as a fuel and illuminant for motors, engines, in manufactures, etc., is allowed by law in the U. S. since Jan. 1, 1907.

**Denby, Charles,** an American diplomatist; born in Mt. Day, Va., in 1830. He was educated at Georgetown University and Virginia Military Institute and became a lawyer. Having served through the Civil War and attained the rank of colonel, he resumed the practice of law. He was appointed Minister to China in 1885 and served for 13 years in Peking. In 1898 he was made a member of the commission to investigate the conduct of the war with Spain, and in 1899 a

member of the Philippine Commission. During the war between China and Japan the Japanese government placed its interests in China in his care. He was consul-general at Shanghai, 1907–9, and Vienna, 1909–15, resigned to engage in business in Detroit.

**Dender River,** a stream that rises in two branches on the Belgian-French frontier and flows N. into the Scheldt near Termonde, at a point about half-way between Antwerp and Ghent. It is in a general way the eastern border of Flanders. It is in the sphere of the great military operations in the summer of 1917. See APPENDIX: *World War.*

**Denis, or Denys, St.,** first Bishop of Paris, in the 3d century. During the persecution of the Christians under Aurelian, he was condemned to death by the Roman governor Pescennius, and beheaded in 272.

**Denis, St.,** a town of France, in the Department of Seine, 6 miles N. of Paris. A chapel in honor of St. Denis was founded at this place, in 250. Dagobert I. founded the abbey in 636, and was buried here in 638, and it has ever since been the place of sepulture for the French monarchs. The first church was finished in 775, and the present edifice, commenced in 1130, was completed in 1281. A battle between the Roman Catholics and the Huguenots was fought in its vicinity, Nov. 10, 1567, when the latter were victorious. The abbey was suppressed in 1792. Pop. (Est.) 74,000.

**Denison,** a city in Grayson county, Tex.; near the Red river and on the Texas & Pacific and other railroads; 106 miles N. of Dallas; is in a coal, cotton, grain, and fruit section; and has large railroad repair shops, petroleum refineries, and manufactures of cotton goods, cotton-seed products, and farming implements. Pop. (1920) 17,065.

**Denison, John Ledyard,** an American historian; born in Stonington, Conn., Sept. 19, 1826; died 1906.

**Denison, Mary (Andrews),** an American novelist, wife of Charles W.; born in Cambridge, Mass., May 26, 1826. Assisted in editing the "Olive Branch," in which her husband was interested; also contributed to various periodicals. She died in 1911.

**Denison University,** an educational institution in Granville, O.; founded in 1831, under the auspices of the Baptist Church.

**Denman, Thomas, Baron,** an English jurist; born in London, Feb. 23, 1779; graduated at Cambridge; and entered Lincoln's Inn in 1806. He succeeded Lord Tenterden as Lord Chief-Justice of England in 1832; and was raised to the peerage in 1834. He retired from the bench in 1850, and died Sept. 22, 1854.

**Denmark,** a kingdom of Northern Europe. It is composed of a peninsular portion, and an extensive archipelago, lying E. of it, with a few scattered islands on its W. side. The peninsular portion is composed of Jutland, and measures, N. to S., 185 miles, with a breadth varying from 40 miles to 108 miles. Besides these territories, Denmark possesses the Faroe Islands and Iceland, in the North Atlantic Ocean, and Greenland, in the Arctic regions, also the Danish West Indies.

For administrative purposes Denmark is divided into 18 counties, each county being subdivided into Herreder or hundreds. Copenhagen is the capital and a separate division, with its own form of administration. The total area is 15,582 square miles, and the total population (1923) 3,352,000.

Denmark has no large rivers. Intercourse between the various islands and parts of the kingdom separated from each other by water is necessarily kept up by means of water communication, regular ferries being established at numerous points. Denmark is well supplied with excellent seaports, the most important being Copenhagen, Aalborg, Aarhus, and Randers.

Horses and cattle are reared in great numbers, and both are excellent. Large flocks of sheep are kept; but rather for the flesh than the wool, which is coarse and short. Swine are also reared to a great extent. Although not particularly favored by nature, Denmark is yet preëminently an agricultural country. The land is greatly subdivided, as the law interdicts the union of small farms into

larger, and encourages the division of landed property. The kinds of grain most largely cultivated are barley, oats, rye, and wheat, the greatest area being occupied by oats, the second by barley. The fisheries were formerly a more important branch of national industry than now. Two causes have contributed to this result — the extension of agricultural pursuits and the decay of the herring fishery which has fallen off greatly within the last 40 years.

Education is very generally diffused, and the fondness for reading which prevails is attested not only by the great number of parochial and other associations for the purpose of procuring works in the various branches of literature and lending them out among the members, but also by the number of books which individuals in the humblest walks of life, both in town and country, manage to collect for their own private use. The Danish is a Teutonic or Germanic language, and as such is related to the Swedish, Norwegian, German, Dutch, and English.

By a charter adopted by the king and diet, June 5, 1849, it was declared that the executive power was vested in the king alone, the legislative in the king and diet jointly. On June 5, 1915, a new Constitution was adopted, which vested the executive power in the king and his responsible ministers, and the right of making and amending laws in the Rigsdag, acting in conjunction with the sovereign. The Rigsdag comprises the Folkething, or House of Commons, of 140 members, and the Landsthing, or Senate, of 72 members. The Lutheran is the established religion, and the king is required by law to be a member of that denomination; but unlimited toleration is extended to every sect, including the Jews, who by a decree of March 29, 1814, were admitted to an equal participation of civil rights, in regard to the exercise of trades, etc., with the other subjects of the State; but, though electors, they cannot themselves be elected as representatives of any class. The bishops of the church are nominated by the crown.

The army of Denmark in 1924 had a war strength of 1,200 officers and 60,000 non-commissioned officers and men. The military budget for 1923 was 60,000,000 kroner. According to a law passed in 1867 the army consists of all the able-bodied young men of the kingdom who have arrived at the age of 22 years. The time of service is eight years in the regular troops and the first reserve, besides another eight years in the extra reserve. The Danish fleet is maintained for purposes of coast defense. The foreign trade was: 1923-24, exports, 1,611,244,000 kroner; imports, 1,973,385,000 kroner. King Christian IX. died Jan. 29, 1906, and was succeeded by his son, Frederick VIII, who died May 14, 1912, and was succeeded by his son, Christian X.; born Sept. 26, 1870; married Princess Alexandrine of Mecklenberg, April 26, 1898.

**Dennison, William,** an American statesman; born in Cincinnati, O., Nov. 23, 1815. He was graduated at Miami in 1835 and became a lawyer, being elected to the Ohio Legislature in 1848. He became governor of Ohio in 1860, and rendered invaluable aid to the Union cause throughout the Civil War. President Lincoln appointed him Postmaster-General in 1864, an office he retained under President Johnson, resigning in 1866. Dennison College owes much to his liberality. He died in Columbus, June 15, 1882.

**Densimeter,** an instrument contrived by Colonel Mallet, of the French army, and M. Bianchi, for ascertaining the specific gravity of gunpowder.

**Density,** a term denoting the quantity of matter per unit of volume of a body.

**Dentistry,** the art of cleaning and extracting teeth, of repairing them when diseased, and replacing them when necessary by artificial ones. There are two very distinct branches of the art now recognized, one being dental surgery, the other what is known as mechanical dentistry. The first requires an extended medical knowledge on the part of the practitioner, as, for instance, a knowledge of diseases the effects of which may reach the teeth, of the connection between the welfare of the teeth and the general system, etc., as well as ability to discern latent oral diseases,

calculate the effects of operations, etc. The chief operations in this department are scaling, or removing the tartar which has accumulated on the base of the teeth; regulating, the restoring of overcrowded and displaced teeth to their proper position; stopping or stuffing, the filling up of the hollow of a decayed tooth and thus preventing the progress of decay; extracting, a process requiring considerable muscular power and delicacy of manipulation.

The second department, mechanical dentistry, is concerned with the construction of artificial substitutes for lost teeth, and requires much mechanical science. In the United States the Baltimore College of Dental Surgery is the oldest, its charter being dated 1839; the Ohio College of Dental Surgery followed in 1845, and various others. The "American Journal and Library of Dental Science" was established in Baltimore in 1839. Every State has now its State Dental Society; besides national organizations, of which the American Dental Association is among the most important.

**Dentition,** an organic process, including both the formation and the cutting of the teeth, accompanied by a kind of disturbance of the general functions of the body. It is most marked in the cutting of the temporary teeth by children. In the second dentition the disturbance is more rare and less visible. Even the cutting of wisdom teeth is sometimes accompanied with general morbid symptoms.

**D'Entrecasteaux Islands,** since 1884 part of the British protectorate of New Guinea, lie N. of the S. E. extremity of New Guinea. With an area of 1,083 square miles, they comprise three chief islands separated by narrow channels. They are named after the French admiral and explorer, Bruni D'Entrecasteaux (1739–1793), who visited these waters in 1792.

**Denver,** a city, capital of the State of Colorado, and county-seat of Arapahoe co., at the junction of the South Platte river and Cherry creek. The city is built on a series of plateaux, and has a climate peculiarly mild and adapted to people suffering from pulmonary troubles. Area 58¾ square miles. Denver is the headquarters of the mining and manufacturing interests of the State, and has the largest smelting works in the world. The city is the metropolis of the Middle West, and on account of its rapid growth and fine buildings is popularly known as the "Queen City of the Plains." The output of Denver's industries are valued at over $125,000,000 annually. Besides its mining interests, which are huge, it is the center of a large stock raising region and here are located vast stock yards for the preparation of beef. Denver is the chief distributing center for a retail trade that covers 600 miles in each direction.

It is also the financial center of the Rocky Mountain region, and a branch of the Federal Reserve Bank is located here. The city is most attractively laid out and is notable for its parks, which cover more than 600 acres.

The first settlements were made in 1857. The place was originally known as St. Charles. It received its present name from James W. Denver, of Kansas, who at one time owned nearly all the State. The State Legislature first met here in 1859, in which year the city received its charter. In 1868 the Denver Pacific was united to the Union Pacific, at Cheyenne. Pop. (1920) 256,491; (1925 Est.) 280,911.

**Deodand,** a personal chattel, which had been the immediate cause of the death of any person, as if a horse struck his keeper and so killed him (a term once used in English law). In these and such cases that which caused the death was to be given to God — that is, forfeited to the crown — to be sold or otherwise disposed of, and the proceeds applied to religious uses or charity. The right to deodands within certain limits was often granted by the crown to individuals. Deodands were abolished in 1846. In the United States the term is applied to instruments of crime preserved in police stations and other public places.

**Deodar,** a large tree, attaining to the height of 100 feet, a native of the Himalayas, and similar in habit of growth to the Cedar of Lebanon, of which it is thought by some to be only a variety.

**Deodorizer,** one who or that which deodorizes; specifically, any substance which has the power or quality of de-

stroying any fetid, infectious, or noxious effluvia, such as chloride of lime, carbolic acid, etc.

**Department,** a term used to denote a territorial division in France. Previous to the Revolution, France was divided into provinces; but in 1790 a decree of the Assembly ordered the abolition of the old provincial divisions (34 in number), and the redistribution of the land into departments, of which there are now 87. The departments, each presided over by a prefect, are again subdivided into arrondissements.

**Departments,** in the United States, branches of the executive administration of the Federal government, each under a secretary, who is a member of the President's "Cabinet." They are officially known as the Departments of Agriculture, Interior, Justice, Navy, Postoffice, State, Treasury, War, Commerce, and Labor.

**Department Store,** a large establishment for the sale of merchandise, of a miscellaneous character, at retail. They have reached vast proportions in the leading cities of America, some of them supplying every requisite for a household.

**De Pauw, Washington Charles,** an American manufacturer; born in Salem, Ind., Jan. 4, 1822; noted for his extensive gifts in behalf of education. His aid to the Indiana Asbury University set it upon a sound basis, and its name was changed to De Pauw University in his honor. He also founded De Pauw College for Women and several charitable institutions at New Albany, Ind., where he died, May 5, 1887.

**Depew, Chauncey Mitchell,** an American lawyer; born in Peekskill, N. Y., April 23, 1834; was graduated at Yale College in 1856, engaged in the presidential campaign for Fremont immediately afterward; studied law, and was admitted to the bar in 1858. He was appointed United States Minister to Japan, and after holding the commission a month declined, and began his career as a railroad official as attorney for the New York and Harlem Railroad. He was made attorney and director of the consolidated Hudson River and New York Central Railroads in 1869; general counsel of the whole Vanderbilt system in 1875; second vice-president of the reorganized New York Central Railroad in 1882, and president in 1885. His political career since 1866 embraces his unsuccessful candidacy as lieutenant-governor on the Liberal Republican ticket in 1872; his election by the Legislature as a regent of the State University in 1874; his candidacy for United States Senator to succeed Thomas C. Platt, in which he withdrew his name after 82 days of balloting in 1881; his declination of the United States senatorship tendered by the Republicans of the Legislature in 1884; his candidacy for the presidential nomination in the national convention in 1888; and his election to the United States Senate Jan. 17, 1899. He has an international reputation as an unusually entertaining speaker, is constantly in request as a lecturer, and has delivered many addresses of large public importance.

**De Peyster, Arent Schuyler,** a Royalist military officer; born in New York city, June 27, 1736; a grandson of Col. Abraham Schuyler and nephew of Col. Peter Schuyler. When 19 years old he enlisted in the 8th Foot Regiment for service in the war with France, and was on duty with his uncle at various important posts. In the Revolutionary War he was a colonel in the Royal army; was at different times in command of the British posts of Detroit, Mackinac, and elsewhere in Canada; and by his influence among the Indians of the Northwest converted them from enemies to friends of the British cause. After the war he retired to Dumfries, Scotland, and enlisted and drilled a regiment of local volunteers, which included Robert Burns, during the French Revolution. He died in Dumfries in November, 1832.

**De Peyster, Johannes,** a New York merchant; born in Haarlem, Holland, in 1600; was one of the early settlers of New York; and became prominent in public affairs during the Dutch possession. He died in New York about 1685.

**De Peyster, John Watts,** an American miscellaneous writer; born in New York city, March 9, 1821. He has contributed much to periodicals, and written a vast number of mono-

graphs, often polemic—one defending his Loyalist grandfather, second in command of the British at King's Mountain. He died May 6, 1907.

**Depilatories,** (I pull out the hair), chemical agents employed for removing superfluous hair from the skin. They were extensively used by the ancients, but are now restricted in their employment to the face, and to the removal of the hair from the scalp in the treatment of certain diseases.

**Deponent,** a person who makes a deposition.

**Deposit,** in law, something given or intrusted to another as security for the performance of a contract, as a sum of money or a deed. In commerce, a deposit is generally either money received by banking or commercial companies with a view to employing it in their business, or documents, bonds, etc., lodged in security for loans.

**Deposit,** in geology, a layer of matter formed by the settling down of mud, gravel, stones, detritus, organic remains, etc., which had been held in suspension in water.

**Deposition,** the evidence or statement of a witness on oath or affirmation, signed by the justice or other duly authorized official before whom it is given; an affidavit.

**Depot,** a French word in general use as a term for a place where goods are received and stored; hence, in military matters, a magazine where arms, ammunition, etc., are kept. In the United States it is the common term for a railway station.

**Depretis, Agostino,** an Italian statesman; born near Stradella Jan. 31, 1813. In 1876 he was called to form a ministry himself, and while acting as president of the council and minister of finance he instituted many reforms in the government. In 1879 he resigned, and Carioli formed a government, but Depretis was again placed at the head of the council in 1885, and remained there until his death, July 29, 1887.

**De Profundis,** in the liturgy of the Roman Catholic Church, one of the seven penitential psalms, the 130th of the Psalms of David, which in the Vulgate begins with these words, signifying, "Out of the depths." It is sung when the bodies of the dead are committed to the grave.

**Deputy,** one who exercises an office as representing another. Chamber of Deputies: the lower of the two legislative chambers in France and in Italy, elected by popular suffrage.

**De Quincey, Thomas,** an English author; born in Manchester, Aug. 15, 1785. He received a classical education at the grammar school of Bath, and entered the University of Oxford in 1803, where he remained till 1808. While there he contracted the habit of eating opium, to which he remained a bounden slave for many years. The consequences were fearful, as he himself relates in his principal work, "The Confessions of an English Opium-eater." He was a very prolific writer; but his works are mostly occasional essays, and papers on historical, literary, and miscellaneous topics. He died in Lasswade, near Edinburgh, Dec. 8, 1859.

**Derajat,** a narrow strip in the Punjab, India, between the Sulimen mountains and the Indus; are 20,300 square miles.

**Derbend,** or **Derbent,** ("gateway"), a port and capital of the Russian district of Daghestan, on W. shore of the Caspian, 140 miles N. W. of Baku; long considered the key of Persia on N. W. Pop. (Est.) 30,000.

**Derby,** a city in New Haven county, Conn., comprising the former towns of Birmingham and Derby; at junction of the Naugatuck and Housatonic rivers, and on the New York, New Haven & Hartford railroad; 9 miles W. of New Haven; is principally engaged in the manufacture of brass and iron goods, pins, and paper. Pop. (1920) 11,238.

**Derby,** the capital of Derbyshire, England, a great manufacturing center, and one of the oldest towns in the kingdom, is supposed to owe its origin to a Roman station, Derventio, situated at Little Chester, on the opposite side of the river. Pop. (1901) 105,785.

**Derby, Edward Geoffrey Smith Stanley, 14th Earl of,** an English statesman; born in Knowsley Park, Lancashire, March 29, 1799. In 1841 he became colonial secretary under Sir Robert Peel, but resigned on Peel's

motion for repeal of the corn-laws. In 1851 and 1858 he formed ministries, and again in 1866. Early in 1868 he resigned office. Earl Derby joined to great ability as a statesman and brilliant oratorical powers a high degree of scholarly culture and literary ability. He died Oct. 23, 1869.

**Derby, Henry Stanley,** fifteenth Earl of Derby, was born in 1826; educated at Rugby, and Trinity College, Cambridge. In 1866 and also in 1874 he was secretary of state for foreign affairs. Lord Derby became a Liberal in 1879, and was secretary of state for the colonies under Mr. Gladstone from 1882 to 1885. He, however, took a stand against Irish Home Rule in 1886, and afterward ranked among Mr. Gladstone's opponents. He died April 21, 1893.

**Derby, George Horatio,** (pen name, "John Phœnix"), an American humorist; born in Dedham, Mass., April 3, 1823. He died in New York, May 15, 1861.

**Derby Day,** the name given to two days of the racing season among English-speaking peoples: (1) The day on which the English Derby is run. (2) The grand inauguration day of the summer season at Washington Park, Chicago, on which day the American Derby is run.

**Derelict,** a vessel or anything relinquished or abandoned at sea, but most commonly applied to a ship abandoned by the crew and left floating.

**De Reszke, Jean,** a Polish singer; born in Warsaw, Jan. 14, 1852. He has sung in Wagner roles in New York and London. His brother, EDWARD, born in Warsaw, Dec. 23, 1855, is a popular bass singer of dramatic rôles, making his début in 1876 as the king in "Aida."

**Derg, Lough,** the largest lake expansion of the river Shannon, between Tipperary and Galway and Clare, in Ireland; is 24 miles long, with an average width of two miles; greatest depth, 80 feet. Its surface is about 100 feet above the sea. Another Lough Derg, in the S. of Donegal co., is 3 miles by 2½, has many small isles and rocks, and wild, dreary shores.

**Dermatology,** that branch of science which treats of the skin and its diseases.

**Dermestes,** a common genus of beetles, including several species of formidable voracity. The most familiar of these is often called the bacon beetle. In the open air it lives on dead animals, and is thus useful enough; but within doors it attacks bacon, cheese, dried meats, furs, cabinet collections, etc. The brown larvæ are equally voracious.

**Dermot Mac Murragh,** the last Irish King of Leinster, attained the throne in 1140. Having carried off the wife of O'Ruarc, Prince of Leitrim, he was attacked by the latter, and after a contest of some years driven out of Ireland (1167). He then did homage to the English king, and with the help of Richard, Earl of Pembroke, recovered his kingdom, but died in the same year (1170), and was succeeded in Pembroke, who had married his daughter.

**Dernburg, Friedrich,** a German descriptive writer; born in Mentz, Oct. 3, 1833. After a university course he acquired eminence in both journalism and politics, being one of the companions of the German Crown Prince (later Wilhelm II.) in a trip to Rome, and later a well-known personality at the Columbian Exposition.

**De Rosny, Leon,** a French Orientalist; born in Loos, France, Aug. 5, 1837. He became Professor of Japanese at the Special School of Languages in 1868, and founder of the International Congress of Orientalists.

**Deroulede, Paul,** a French poet; born in Paris, Sept. 2, 1846. His "Soldier Songs" (1872) and "Military Refrains" (1888) were immensely popular. He died Jan. 30, 1914.

**Derrick,** a lifting apparatus consisting of a single post or pole, supported by stays and guys, to which a boom with a pulley or pulleys is attached, used in loading and unloading vessels, etc.

**Derrick Crane,** a kind of crane combining the advantages of the common derrick and those of the ordinary crane.

**De Russy, Rene Edward,** an American military officer; born in Haiti, W. I., Feb. 22, 1789. He was graduated at the United States Military Academy in 1812, serving with credit in the war with England. He

subsequently supervised the construction of fortifications in New York harbor and the Gulf of Mexico. During the Civil War he was ordered to the Pacific coast, where he constructed defenses in San Francisco harbor. He died in San Francisco, Nov. 23, 1865.

**Dervish,** a Mohammedan monk or religious fanatic, who makes a vow of poverty and austerity of life. There are several orders, some living in monasteries, some as hermits, and some as wandering mendicants. Some, called



DERVISH OF CAIRO.

dancing dervishes, are accustomed to spin or whirl themselves round for hours at a time, till they work themselves into a state of frenzy, when they are believed to be inspired.

**Derwentwater, James Radclyffe, Earl of,** one of the leaders in the English rebellion of 1715; born in London, June 28, 1689; was educated in France. He succeeded as 3d earl in 1705, on the death of his father. The history of the Earl of Derwentwater becomes the history of the rebellion of 1715 (see JACOBITES), which ended in the disastrous encounter at Preston, where Derwentwater was taken prisoner and conveyed to the Tower of London. Impeached of high treason at the opening of Parliament, he was brought to trial in Westminster Hall, when he pleaded guilty and threw himself on the mercy of the king. Every effort was made to obtain a pardon, all exertions were in vain, and he was beheaded on Tower Hill, Feb. 24, 1716. He is the hero of a touching ballad of the day, and of "Dorothy Forster," Mr. Besant's charming romance.

**Desaguadero,** ("channel" or "outlet"), the name of various waters in South America, of which the principal is the Rio Desaguadero in Bolivia, emptying its waters into Lake Aullagas. Also a river in the Argentine Confederation flowing into Lake Bevedero Grande, and separating the provinces of San Juan and Mendoza.

**Desaix de Veygoux, Louis Charles Antoine,** a French general; born in Auvergne, Aug. 17, 1768. He was one of the bravest generals of the great Napoleon, and was killed at the battle of Marengo, to which victory he principally contributed, June 14, 1800.

**Desault, Pierre Joseph,** a French surgeon; born near Macon, 1744. During the violence of the Revolution he was confined some time in the Luxembourg prison; but his usefulness saved his life. He died while attending the Dauphin, June 1, 1795, which induced a suspicion that he was dispatched because he would not poison that unfortunate prince.

**Desbarres, Joseph Frederick Walsh,** an English military engineer; born in England, of Huguenot parentage, in 1722, and in 1756 sailed as lieutenant-governor of Cape Breton (1784–1804), and of Prince Edward Island (1805–1813), having attained the rank of colonel only in 1798. He died in Halifax, Nova Scotia, Oct. 24, 1824.

**Descartes, René,** (RENATUS CARTESIUS), a French philosopher; born in La Haye, Touraine, France, March 31, 1596. While pursuing his

education in the Jesuits' school at La Fleche, where he studied philology, mathematics, and astronomy, his superior intellect manifested itself. After a variety of travels he remained in Holland where he composed most of his writings from 1629 to 1649, drew about him many scholars, and was engaged in many learned controversies, especially with theologians.

His celebrated system abounds in singularities and originalities; but a spirit of independent thought prevails throughout it, and has contributed to excite the same spirit in others. It has done much to give to philosophical inquiries a new direction and found many adherents.

Descartes loved independence; he nevertheless suffered himself to be persuaded to go to Stockholm on the invitation of Queen Christina, who was very desirous of his society. He died in that place Feb. 11, 1650.

**Deseret,** the name first adopted by the Mormons for what is now Utah. See MORMONS: UTAH.

**Desert,** a term generally used to designate an uninhabited place or solitude. In this sense it is equally applicable to the fertile plains watered by the Maranon, and to the wastes of Libya; but it is applied more particularly to the vast sandy and stony plains of Africa and Asia.

**Deserter,** in military affairs, an officer, soldier, or sailor who abandons the public service in the army or navy without leave. In the United States desertion from either service in time of war is punishable by death or otherwise, as a court-martial may adjudge.

**Desiccation,** the evaporation or drying off of the aqueous portion or bodies. It is practised with fruit, and many other matters. It is usually done by a current of heated dry air, and as such may be considered as distinguished from evaporators, so called, to which furnace heat or steam heat is applied.

**Desmarres, Louis Auguste,** a French oculist; born in Evreux, Sept. 22, 1810. He powerfully promoted the knowledge of the pathology and anatomy of the eye, and invented an ophthalmoscope now generally used. He died in Neuilly, Aug. 23, 1882.

**De Smet, Peter John,** an American missionary; born in Belgium in 1801; came to the United States, in 1821; died in 1872.

**Des Moines,** city, port of delivery, and capital of Polk county and of the State of Iowa; at junction of the Des Moines and Raccoon rivers, and on several trunk line railroads; 145 miles E. of Omaha, Neb. It is a large trade distributing center, with heavy shipments of grain, and its varied manufactures, notably of farm implements and machinery, have an annual value of many millions. Besides the usual State and Federal buildings it is the seat of Drake University, Des Moines College, and Highland Park College. Pop. (1920) 126,468.

**De Soto, Bernardo,** a Costa Rican statesman; born in 1854; elected president of the republic in 1887. Under his administration the finances of the country, disordered by Guardia, were placed on a secure footing, and the work of completing the interoceanic railway from Port Limon, on the Caribbean Sea, to San Jose, the capital, and thence to Punta Arenas, on the Pacific coast, was prosecuted.

**De Soto, Fernando,** a Spanish discoverer; born at Jeres de los Cavalleros, in Estremadura, about 1496, of a good but impoverished family; accompanied Pedrarias Davila to Darien in 1519; served on the expedition to Nicaragua in 1527; and afterward assisted Pizarro in the conquest of Peru; returning to Spain with a fortune of "an hundred and fourscore thousand ducats." Charles V. now gave him permission to conquer Florida at his own expense, and appointed him governor of Cuba; and in 1538 he sailed from San Lucar with a richly equipped company of 600 men, 24 ecclesiastics, and 20 officers. The fleet anchored in the bay of Espiritu Santo (now Tampa Bay) on May 25, 1539; the ships were sent back to Cuba, and the long search for gold was begun. For three years, harassed by hostile Indians, lured onward by reports of wealth that lay beyond, the ever-decreasing company continued their toilsome march over a route that cannot now be very clearly traced. In 1541 the Mississippi was reached and

crossed, and the third winter was spent on Washita river. Returning to the Mississippi in the spring, De Soto, worn out by disappointments, died of a fever on its banks, in June, 1542; and that his death might be concealed from the Indians, his body, wrapped in a cloak, was lowered at midnight into the waters of the great stream he had discovered. In the following year his companions, reduced to half their original number, sailed down the river in seven frail boats, and finally reached the town of Panuco, Mexico.

**Despoblado** (desert), a treeless, uninhabited plateau, nearly 10,000 feet above the sea, on the Bolivian and Argentine frontier.

**Dessalines, Jean Jacques,** an emperor of Haiti; born in Africa about 1760; was a slave in 1791, when the insurrection of the blacks occurred in that island, but was set free along with the other slaves in St. Domingo in 1794. His talents for war, his courage, and unscrupulous conduct raised him to command in the insurrections of the colored people, and after the deportation of Toussaint L'Ouverture, and the subsequent evacuation of the island by the French, Dessalines was appointed governor-general for life with absolute power; and the year following (1804) was declared emperor with the title of Jacques I.; but his rule was savage and oppressive, and both the troops and the people, sick of his atrocities, entered into a conspiracy against him, and, Oct. 17, 1806, he was slain by one of his soldiers.

**Dessau,** a town of North Germany; capital of the Free State of Anhalt; on the left bank of the Mulde, not far from its junction with the Elbe, 70 miles S. W. of Berlin. Pop. (1910) 56,605. (Est.) 1921, 60,000.

**Desterro,** a seaport of Brazil, former capital of the province of Santa-Catharina. The harbor is, next to that of Rio de Janeiro, the best on the Brazilian coast.

**Desuetude,** in Scots law, that repeal or revocation of a legal enactment which is effected not by a subsequent contrary enactment, but by the establishment of a contrary use, sanctioned by the lapse of time and the consent of the community.

**Detaille, Jean Baptiste Edouard,** a French painter; born in Paris, Oct. 5, 1848. He was distinguished for his treatment of battles and military subjects. One of his best pictures, "The Passing Regiment," is in the Corcoran Art Gallery in Washington, D. C. He died Dec. 24, 1912.

**Detmold,** capital of the German Free State of Lippe, on the Werre, 47 miles S. W. of Hanover. On a hill near Detmold is a colossal statue of Arminius. Pop. (Est.) 15,000.

**Detonating Powders,** certain chemical compounds, which, on being exposed to heat or suddenly struck, explode with a loud report, owing to one or more of the constituent parts suddenly assuming the gaseous state.

**Detritus,** applied in geology to accumulations formed by the disintegration of rocks, may consist of angular and subangular debris, or of more or less water-worn materials, such as gravel, sand, or clay, or a mixture of these.

**Detroit,** city, port of entry, and county-seat of Wayne Co., Mich.; on the Detroit river, about 18 miles from Lake Erie, and 4 miles from Lake St. Clair. It is the first city in population and importance in the State. It has a water front of 8 miles; steamship communication with the principal ports on the Great Lakes; and ferries to Windsor on the Canadian side. The city is defended by Fort Wayne, a mile below. The river at this point is known as the "Dardanelles of the New World," leading from one great lake to another and affording an excellent harbor. Area, 76¼ square miles; pop. (1920) 993,678. The street railway lines are operated by electricity, and there are over 167 miles in the city limits, with 220 miles more in operation or under construction for suburban traffic. Detroit has many magnificent public parks, and over $1,000,000 is expended annually for their maintenance. The largest and most beautiful is Belle Isle, an island of 700 acres at the entrance of Lake St. Clair. This park is an immense pleasure ground and offers all sorts of amusements. Palmer Park is also an ideal pleasure ground, covering an area of 132 acres. There are a number of smaller parks.

No city of its size in the country surpasses Detroit in the number, beauty, and substantial quality of its public and business buildings. Among the most noteworthy are the Chamber of Commerce, Majestic, Union Trust, Hammond, municipal buildings, County Court House, City Hall (a handsome structure in Italian style), the Postoffice, built at a cost of $2,000,000, Light Guard Armory, Art Museum, Central High School, and Masonic Temple. Near the Campus Martius is the Public Library, with 150,000 volumes. In front of the City Hall stands a magnificent Soldiers' and Sailors' Monument. Other points of interest are Fort Wayne, the Bagley Fountain, Evacuation Day Tablet, the old home of General Grant and relics of Perry's victory on Lake Erie. A tunnel under the Detroit river, connecting the city with Windsor, Canada, was completed in 1910, at a cost of $10,000,000.

Detroit increased her population from 1910 to 1920 by 113 per cent. The city is the chief automobile manufacturing center of the world. About two-thirds of all those produced annually are made in Detroit. There are 68 motor car factories located in the city, chief among which is the Ford automobile parent factory. This factory alone makes annually 1,500,000 machines a year besides its output of tractors made at Dearborn nearby.

Detroit in 1923 had 2,176 manufacturing establishments, with about 176,000 workers and a total product value of $1,234,519,842.

The site of Detroit was permanently settled by French colonists under De la Motte Cadillac in 1701, when Fort Pontchartrain was built as a defense against Indians. Owing to its great strategic importance it has never been without a military garrison since 1701. It has changed its flag five times; was at times under French and English dominion prior to the Revolutionary War; has owed allegiance to three different sovereigns; has been besieged by Indians twice; captured in war once; totally consumed by fire once; and has been the scene of 12 massacres and 50 battles. The English took possession of it in 1760, and erected (1778) Fort Lernoult, the site of which is now in the heart of the city. It was ceded to the United States by the peace of 1783, but possession was not taken till Gen. Anthony Wayne established himself here in 1796; General Hull surrendered it to the British in 1812; and the Americans regained possession after Commodore Perry's victory on Lake Erie, in 1813. The present city was laid out in 1806; incorporated as a city in 1815; and was the capital of the State in 1837–1847.

**Dettingen,** a village of Bavaria, on the Main, 10 miles N. W. of Aschaffenburg; is noted as the scene of a battle during the war of the Austrian Succession, when, on June 27, 1743, George II. of England, commanding English, Hanoverians, and Austrians, defeated the larger French army under the Duc de Noailles. This was the last time a king of England took the field in person.

**Deuteronomy,** the Greek name of the fifth book of the Pentateuch. It consists of three discourses in which Moses bids farewell to the people of Israel. In the first discourse the deliverance from Egypt and the forty years wandering are reviewed; in the second, there is a restatement and exposition of the law; in the third there are solemn appeals and warnings. To these are added four chapters containing the song of Moses, his blessing and record of death.

**Development,** the gradual advance stage by stage of animal or vegetable bodies from the embryonic to the perfect state.

**Development Hypothesis,** in biology, a hypothesis or theory which contends that species were not each of them a separate creation, but by some process or other came from previous species, the only exception, if any, existing, being one or more primordial forms.

**Devens, Charles,** an American jurist; born in Charlestown, Mass., April 4, 1820. He was educated at Harvard and Cambridge; was United States marshal for the District of Massachusetts at the time when the case of Thomas Sims, a fugitive slave, attracted widespread attention. Devens delivered Sims to his master in

accordance with the law, and afterward tried to purchase his freedom, but did not succeed till after the outbreak of the Civil War. He served in the Union army from 1861 to 1865, retiring with the full rank of Brigadier-General and the brevet rank of Major-General. In 1873 he was made Associate Justice of the Massachusetts Supreme Court; in 1877 became Attorney-General of the United States; and in 1881 resumed his place on the Supreme bench of his native State. He served one term as commander-in-chief of the G. A. R. He died Jan. 7, 1891.

**De Vere, Sir Aubrey,** an Irish poet; born in Curragh Chase, Aug. 28, 1788; died July 5, 1846.

**De Vere, Aubrey Thomas,** an Irish poet and descriptive and political essayist; born in Curragh Chase, Limerick, Jan. 10, 1814; son of Sir Aubrey; died in London, England, Jan. 21, 1902.

**De Vere, Maximilian Schele,** a noted philologist; born near Wexio, Sweden, Nov. 1, 1820; came to the United States in 1843; in 1844 became Professor of Modern Languages and Belles Lettres in the University of Virginia. His contributions to the leading magazines were literary and scientific. He died in 1898.

**Deviation of the Compass,** the deviation of a ship's compass from the true magnetic meridian, caused by the near presence of iron. In iron ships the amount of deviation depends on the direction, with regard to the magnetic meridian, in which the ship lay when being built. It is least when the ship has been built with her head S. Wooden ships are also affected, though in a far less degree, by the direction in which they lie when building.

**Devi,** in Hindu mythology, "the goddess," or Mahadevi, "the great goddess," wife of the God Shiva and daughter of Himavit (that is, the Himalaya Mountains).

**Devil,** or **Satan,** names applied in the New Testament and in Christian theology to the supreme impersonation of evil, considered as possessing an objective existence outside of man, and placed at the head of a host of inferior evil spirits, whose continual occupation is to thwart the good purpose of God and the progress of His kingdom in the hearts of men. Other names merely suggest the same essential ideas of his nature and function, as the wicked one, the enemy, and the like.

**Devilfish,** the popular name of various fishes, one of them being the angler. Among others the name is given to several large species of ray occasionally captured on the Atlantic and Pacific coasts of America, and much dreaded by divers. During gales of wind or from strong currents these immense fish are driven into shoal water, and being unable to extricate themselves fall an easy prey to the vigilance of the fishermen, who obtain considerable quantities of oil from their livers.

**Devil's Advocate,** an official at the Vatican who urges such objections as may exist against the canonization of any individual whose name it is proposed to add to the calendar of saints.

**Devil's Bridge,** a famous bridge in Switzerland, over the Reuss, built of stone from mountain to mountain, 75 feet in length, on the road over St. Gothard, from Germany to Italy.

**Devil's Island,** (Isle du Diable), a small rock formation off the coast of French Guiana, belonging to France. The area is about 16 square miles, and the island itself is sandy, dry, and torrid. Here Capt. ALFRED DREYFUS was imprisoned for alleged treason.

**Devil's Punch-bowl,** a small lake of Ireland, near the lakes of Killarney, between 2,000 and 3,000 feet above the sea, supposed to be the crater of an ancient volcano.

**Devil's Slide,** a gorge of the Utah mountains, formed wholly by the natural arrangement of parallel crags and resembling an inclined plane. The accidental juxtaposition of two such boulder masses, accounted for by the simultaneous action of a cooling atmosphere on liquefied masses, is a feature of Utah scenery.

**Devil's Wall,** an interesting structure in the S. of Germany. This wall was originally a Roman ditch with palisades behind it. It was intended to protect the Roman settlements on the left bank of the Danube, and on the right bank of the Rhine, against

the inroads of the Teutonic and other tribes. The wall extended for about 368 miles, over mountains, through valleys, and over rivers, running toward the Danube. Remains of it are found at present only from Abensberg, in Bavaria, to Cologne, in Rhenish Prussia, on the Rhine.

**Devil Worship,** a homage paid by primitive tribes to the devil or spirit of evil in the belief that he could be bribed from doing them evil. Devil worship is also practised by the Yezidees, a sect in Armenia numbering about 250,000.

**De Vinne, Theodore Low,** an American printer; born in Stamford, Conn., Dec. 25, 1828. He learned the printer's trade and became an employe and later partner of Francis Hart, upon whose death he founded the firm of Theodore L. De Vinne & Co., in New York city. He wrote many works on typography, including "Invention of Printing" and "Historic Types." He died Feb. 16, 1914.

**Devonian System,** a name in geology originally given to the rocks of Devonshire and Cornwall, England. Devonian rocks occupy a large area in the United States, Eastern Canada, Nova Scotia, and Central Europe. In the United States they are found in New York and Pennsylvania, and include sand and limestone, used in building material. Devonian rocks appear in some regions of the Appalachian Mountains. In the middle part of Michigan, they surround the coal basin; and are also found in Kentucky, Indiana, Ohio, Illinois, Eastern Iowa, and Nevada. In Maine they are in a metamorphic condition. In the Upper Groups of the Devonian System they are carbonaceous shales, which by natural distillation give much of the petroleum of natural gas found in the sandstones of Pennsylvania and Eastern Ohio.

**Devonport** (before 1824 called PLYMOUTH DOCK), a parliamentary and municipal borough, maritime town, and naval arsenal, in the S. W. of Devonshire, England; two miles W. N. W. of Plymouth. It owes its existence to the dockyard established here by William III. in 1689, and is one of the chief naval arsenals in Great Britain.



**Devons,** a breed of cattle which originated in Devonshire, England. The cows yield rich milk, are hardy, and able to find food on poor lands.

**Dewar, Sir James,** British scientist, b. Kincardine, Scotland, 1842. Assistant to Lord Playfair, he became prof. at Cambridge, Royal Institution, London; Pres. of Chemical Society; of British Association; with Sir F. Abel invented cordite, and was knighted in 1904.

**Dewberry,** the dewberry of North America is a delicious fruit, much superior to the British fruit of the same name, and more tart. The plant is of very humble growth, scarcely rising above the ground.

**De Wet, Christian,** a Boer military officer; born in Dewetsdorf, Orange Free State (now Orange River State), about 1860. He was bred a farmer and made a small fortune. He became a member of the Volksraad. Though practically without military experience, he served ably in the Boer-British War of 1899–1900, attaining the rank of general and outwitting the pursuit of Kitchener and Roberts in the summer of 1900, and of the former in the early part of 1901. His stand at Sanna's Post was highly praised by military experts.

**Dewey, Chester,** an American educator; born in Sheffield, Mass., Oct. 25, 1784. He graduated at Williams College in 1806, where, in 1810, he became Professor of Mathematics and Natural Philosophy, a post he held 17 years. In 1836 he was appointed principal of the Collegiate Institute in Rochester, N. Y., and in 1850 became Professor of Chemistry and Natural Philosophy in the University of Rochester, resigning 10 years later. He was an authority on grasses. He died in Rochester, N. Y., Dec. 15, 1867.

**Dewey, George,** an American naval officer; born in Montpelier, Vt., Dec. 26, 1837. He came of New England stock, his father being Dr. Julius Y. Dewey, one of the first authorities on life insurance in his day, and a man held in high esteem in the business community. At the age of 17, after a preparatory course in the Northfield Military School, young Dewey was appointed a cadet at An-

napolis, in the class which graduated in 1858. A practice cruise on the "Wabash" followed, and he was resting at home when the Civil War broke out. At once he was commissioned a lieutenant and assigned to the "Mississippi," a 17-gun steam-sloop of the old side-wheel type, under Commander Melanchthon Smith. His first serious taste of war was when the West Gulf squadron, early in 1862, forced a passage up the Mississippi river ahead of Farragut. A later enterprise resulted in the grounding of the "Mississippi," in the middle of the night, while attempting to run the batteries of Port Hudson. Here she was riddled with shot and set afire by the enemy's batteries, so that officers and crew had to abandon her, and make their way as best they could to the other shore before the flames reached her magazine and she exploded.

Other notable engagements in which Dewey figured during the Civil War were at Donaldsonville in 1863, where he was on one of the gunboats, and at Fort Fisher in the winter of 1864–1865, as an officer of the "Agawam." Receiving his commission as lieutenant-commander in March, 1865, he served for two years on the "Kearsarge" and the "Colorado," and was then attached to the Naval Academy for two years more. In 1870 he was given command of the "Narragansett," and during his five years' charge of her rose to be a commander. He was then attached to the Lighthouse Board, and in 1882 took his next sea duty in command of the "Juniata," of the Asiatic squadron. On reaching his captaincy, in 1884, he took charge of the "Dolphin," one of the first vessels of the "new navy." From 1885 to 1888 he commanded the "Pensacola," then flagship of the European squadron; and this service was followed by a shore duty of considerable length, in the course of which he served as chief of the Bureau of Equipment at the Navy Department, and afterward on the Lighthouse Board for a second time. In 1896 he was promoted to commodore, and made head of the inspection board; and at the beginning of 1898 was given command of the Asiatic squadron, and the chance to distinguish himself.

With his squadron he left Mirs Bay, China, April 27, 1898, with orders to "capture or destroy the Spanish squadron," which was then supposed to be in Manila Bay, under command of Admiral Montojo. The squadron entered the channel of Manila at 11:30 P. M., Saturday, April 30, and early on Sunday morning, May 1, sank, burned or captured all the ships of the Spanish squadron in the bay, silenced and destroyed three land batteries, and obtained complete control of the bay, without losing a single man, and having only nine slightly wounded. For this he received the thanks of Congress and a magnificent sword; on May 7, 1898, was promoted to be a rear-admiral, and March 3, 1899, was made Admiral of the Navy. In 1900 he became President of the General and Joint Boards of the Navy; in 1901 presided at the Schley Court of Inquiry; in 1902 commanded the united squadrons and fleets mobilized for extraordinary manœuvres. He died Jan. 16, 1917.

**Dewey, Melvil,** librarian and educator; born at Adams Centre, N. Y., in 1851; graduated at Amherst College in 1874. He devoted himself to library work, and became widely known, chiefly through his "Decimal Classification," a valuable cataloguing system which has been adopted in the leading libraries throughout the world; and by other literary labor-savers.

**De Witt, Jan,** Grand Pensionary of Holland, celebrated as a statesman and for his tragical end; was the son of Jacob de Witt, burgomaster of Dort, and was born in 1625 or 1632. He became the leader of the political party opposed to the Prince of Orange, and in 1652, two years after the death of William II., was made grand pensionary. In 1665 the war with England was renewed and conducted by De Witt with great ability till its termination in 1665. In 1672 Louis XIV. invaded the Spanish Netherlands and involved Holland in war. De Witt's popularity, already on the decline, suffered still further in the troubles thus occasioned, and he felt it necessary to resign his office of grand pensionary. At this time his brother Cornelius, who had been tried and put to torture for conspiring against the life of the young Prince of

Orange, lay in prison. Jan de Witt went to vist him, when a tumult suddenly arose among the people, and both brothers were murdered, Aug. 20, 1672.

**Dexter, Henry,** an American news agent; born in West Cambridge, Mass., March 14, 1813. He was educated in the common schools, and, after obtaining employment in various publishing houses, started for himself as a news agent and wholesale dealer. In 1864 he organized the American News Co. In September, 1903, his only son was assassinated on his estate in the Adirondacks, on account, it is supposed, of animosity aroused by the exclusion of woodmen and others from what formerly was forestland, open to the public. He died in 1910.

**Dexter, Henry Martyn,** clergyman and historian; born at Plympton, Mass., 1821; graduated at Yale and Andover, and held several prominent pastorates. He wrote and edited a long list of valuable works on ecclesiastical history. He died in 1890.

**De Young, Michael Harry,** an American publisher; born in St. Louis, Mo., Oct. 5, 1848. He received a common school education and in 1865 established with his father the "Dramatic Chronicle," subsequently merged into the San Francisco "Chronicle." He was commissioner from California to the Paris Exposition of 1889, vice-president of the World's Columbian National Commission in 1892, and director-general of the California Midwinter Exposition of 1893. In the last named year he was made vice-chairman of the Republican National Committee.

**Dhalak,** an archipelago of the Red Sea, off the coast of Abyssinia. It contains nearly 100 rocks and islets, mostly uninhabited, clustering round the island of Dhalak el-Kebir, which is about 35 miles long by 30 broad.

**Dhow,** an Arab sea-going vessel, with one mast and a large, square sail. It is used for transporting merchandise and slaves.

**Dhurra,** or **Dourah,** Indian millet, after wheat the chief cereal crop of the Mediterranean region, and used by the laboring classes for food. Varieties are grown in many parts of Africa, one of them known as Kaffir corn.

**Dhwalagiri,** once supposed to be the highest peak of the Himalayas, but now ascertained to be at most only the third in point of altitude, has a height of 26,826 feet above the sea. It is in Nepal.

**Diabetes,** a constitutional disease produced by malassimilation in the stomach, liver, kidneys, or in the blood, specially marked by a very excessive discharge of urine, which is always saccharine, excessive thirst, and great bodily emaciation.

**Diablerets,** a remarkable mountain of the Bernese Alps, Switzerland, on the frontiers of Bern and Valais, with a height of 10,651 feet above the sea. The Diablerets, with their four main peaks, are composed of limestone strata, the lower beds of which are so soft and shaly that they are easily disintegrated, and masses from above tumble over into the valley.

**Diadem,** an arch rising from the rim of a crown or of a coronet, and uniting with other arches to form a center.

**Diagnosis,** in medicine (1) The sign or symptom by which a disease is known or distinguished from others; (2) That branch of medical science which deals with the study of the symptoms by which diseases are diagnosed or discriminated; symptomatology.

**Dial,** an instrument for showing the time of day by the sun's shadow. Ahaz, about 771 B. C., set up the dial which is mentioned in the account of the miraculous cure of his son Hezekiah. This is perhaps the first dial on record, and is 140 years before Thales, and nearly 400 years before Aristotle and Plato, and just a little previous to the lunar eclipses observed at Babylon, as recorded by Ptolemy. Dials are of various construction, according to the presentation of the plane of the dial. The word is now commonly applied to the face of a clock or watch, meter, etc.

**Dialect.** In the philosophical sense of the word, a language which resembles another in its general features, but differs from it in details. The two most widely spread families of languages in the world are the Indian-Gothic, and the Semitic. In the former are included the Sanskrit, Zend,

Armenian, Greek, Latin, Lithuanian, Slavonic, Teutonic, and Celtic dialects. In all these, the resemblance, though often far distant, is able to be traced. The Semitic embraces the Hebrew, Syriac, Arabic, and other dialects not so well known.

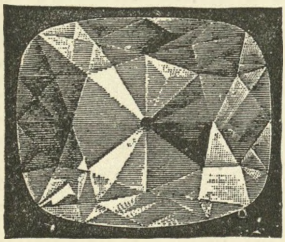
**Dialectics,** the old name for logic, or the art of reasoning and disputing justly.

**Dialogue,** a conversation or discourse between two or more persons. The word is used more particularly for a formal conversation in theatrical performances, and for a written conversation or composition, in which two or more persons carry on a discourse.

**Diamantina,** a town in the Brazilian province of Minas Geraes. It is the center of a rich diamond district; has manufactures of cotton and goldware, and is the seat of a Roman Catholic bishop. Pop. 13,000.

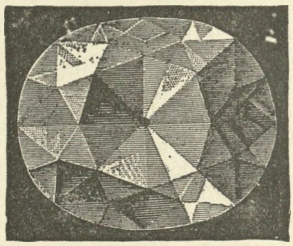
**Diameter,** in geometry, a line drawn passing through the center of a circle or other curvilinear figure, and terminating each way in the circumference.

**Diamond,** a natural form of carbon, highly valued as a precious stone when transparent and of the crystalline form. It is the hardest substance known; but in spite of this hardness it is very brittle and cleavable. It is generally colorless, but sometimes tinged pink, red, orange, yellow, green, blue, brown, or black. Blue, red, and green are exceedingly rare colors. The



STAR OF THE SOUTH.

finest deep red diamond known is that in the possession of the Russian Crown, purchased in the time of the Emperor Paul, of Russia. Light yellow, straw, and brown are the most common colors; rich yellow and browns are also highly prized. Some bluish-white Brazilian diamonds are phosphorescent in the dark after exposure to the sunlight. The diamond is unaffected by any liquid and infusible at the highest attainable temperature. It gradually burns away before the oxy-hydrogen blowpipe, or in the electric furnace, or when it is heated red-hot and plunged into an atmo-



THE KOHINUR.

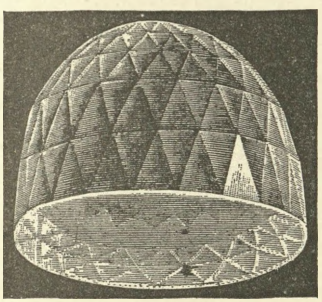
sphere of oxygen, carbonic acid then being produced. Exposed to the intense heat of the voltaic arc, the diamond becomes converted into graphite. Besides its value as a gem it is of great use in the arts and manufactures. Diamond dust is used for cutting and polishing other gems.

Originally diamonds were preserved in their natural form, but in 1456 Louis de Berguin or Bruges discovered the art of polishing them on rotating disks with diamond dust. These circular disks are at the present time of soft steel covered with diamond dust and oil, and made to revolve at 3,000 revolutions a minute. This gives the diamonds the artistic smooth surfaces and sharply defined edges. The process is slow and tedious, and requires great skill to produce fine results. Until a few years ago Amsterdam was the great diamond-cutting center of the world, but the finest cutting is now done in the United States, and in a great measure by machinery.

The finest brilliant in the world today is the "Jubilee" diamond, shown at the Paris Exposition of 1900; this was a brilliant of 239 carats of wonderful brilliancy and purity, and was found at the Jagersfontein mine in South Africa. Diamonds of from 1

to 22 carats each have been found in 24 localities in the United States, mapped by Kunz for the United States Geological Survey.

Authors and composers of Eastern tales long wrote of diamonds as being found in India only, and chiefly in the mines of Golconda — a misnomer, as Golconda was the market not the mine; and diamonds from many mines were sold there. But since the year 1728 these stones have been found in great abundance in Brazil. In 1829 a vein of diamonds was discovered in the Ural Mountains; and in 1867, in the S. of Africa, John O'Reilly, a trader and hunter, reached the junction of two rivers, and stopped for the night at the house of a farmer named Van Niekerk. Children were playing with



THE GREAT MOGUL.

some pebbles they had found in the river. O'Reilly took one of these pebbles to Dr. Atherstone at Cape Town, who said that it was a diamond of 22½ carats. It was sold for $3,000. Niekerk remembered that he had seen an immense stone in the hands of a Kaffir witch-doctor, who used it in his incantations. He found the man, gave him nearly all he possessed for the stone, and sold it the same day to an experienced diamond buyer for $56,000. This was the famous "Star" of South Africa. It weighed 84½ carats in the rough, and was found to be a gem quite the rival of an Indian stone in purity and brilliancy. The mines at Kimberley, 600 miles from Cape Town, are of exceeding value, the richest in the world. The output of a single mine, the "Kimberley," is $4,000,000 annually, and within 10 years this district has yielded about $58,000,000 in dividends. Ninety-five per cent. of all the diamonds produced in the past 20 years came from South Africa.

Most of the great diamonds distinguished for beauty and size have very interesting histories. One of the most famous is the Koh-i-Nur, or Koohinoor, "Mountain of Light." The legend is that it was carried 5,000 years ago by the hero Karna, whose deeds are celebrated in the "Mahabharata." It made its first appearance in history in the 14th century, when Ala-ed-din brought it to Delhi. At that time it was supposed to weigh 793 carats. When in 1673 the Grand Mogul sold it to Tavernier, it weighed only 279 carats, having been injured by the lack of skill of a Venetian lapidary. It was brought in 1739 at the sack of Delhi to Afghanistan. Thence it came into the possession of the East India Company, which presented it in 1850 to the English Crown. It was re-cut in 1852 and now weighs 106 1-16 carats. What was then said to be the largest stone in the world was sent to London from the Jagersfontein mines in South Africa in 1893. It weighed 971 carats and was three inches in length.

The largest known diamond in the world was discovered in the Premier mines in the Transvaal in January, 1905, and named the Cullinan. In its original state it weighed 3,253¾ English carats, or over 1⅓ pounds avoirdupois. It was insured for $1,250,000, presented to King Edward VII. by the Transvaal Government, and sent to Amsterdam, where it was divided into 11 stones, two of which are the largest in existence, besides numerous ends.

Another important diamond is the one at the point of the scepter of the Russian empire, known as the Orloff, which weighs 194¾ carats. At one time it formed the eye of an idol in the temple of Seringham in Mysore, whence it was stolen. It was in the throne of Nadir Shah, and after his murder it was bought by an Armenian merchant in 1772 at the price of 450,000 silver rubles and the title of nobility. By the gift of Prince Orloff, a favorite of Catherine II.,

from whom it derived its name, it came into her possession. Some writers believe that this and the Koh-i-Nur are the two parts of the "great mogul" diamond.

The Regent or Pitt diamond was, till the recent opening of the South African mines, for over a century, one of the most perfect and beautiful diamonds in existence. It weighs 136.75 carats, and is of the purest water and most perfect shape. It came from the East Indies and was sold by a sailor to Pitt, governor of Fort St. George. From him it came into the hands of the Duke of Orleans at the time of the French Revolution. It was in pawn at the hands of a merchant by the name of Trescow. Afterward it decorated the sword hilt of Napoleon I., and is now in the Galerie d'Apollon in the Louvre.

One of the finest of diamonds is the Sancy diamond, 53½ carats, of exquisite shape and perfect water. It has been traced back to Charles the Bold, who lost it in 1477 at the battle of Nancy. It is now owned by a collector, who paid $70,000 for it.

One of the most superb diamonds known is the sapphire-blue brilliant Hope diamond, valued at about $100,000. It is believed to have been cut from a blue diamond weighing in the rough 112½ carats, sold by Tavernier to Louis XIV., and which disappeared in the troubles of 1792. The largest diamond ever found in Brazil weighed 254½ carats, and was discovered in 1853 by a negress in the river Bogageno; it is known as the "Star of the South." It was sold to the Gaekwar of Baroda for $450,000.

From 1750 to 1870 the value of a diamond was fixed on a basis of the square of its weight; that is, a one-carat stone was worth $100, a 10-carat stone was worth — 10 x 10 x 100 — $10,000. This was due to the fact that large stones were rare. But in the African mines, large stones are found, and the increase in value from one carat up is worth only a fraction more per carat than the carat weight would show. When brilliants are exceedingly small the value per carat may be double that of stones weighing one-sixteenth to one-fourth carat each, owing to the difficulty of cutting. Slight imperfections lower their value.

**Diamond Necklace, The,** a famous piece of jewelry, made in Paris about 1775, and intended for Madame Dubarry, the favorite of Louis XV. She, however, was excluded from court on the death of Louis before the necklace was finished. After being made it was found to be so costly that no one could purchase it. It was valued at about $400,000. The Prince Cardinal de Rohan persuaded by an adventuress named De Lamotte that the queen (Marie Antoinette) regarded him with favor, became completely infatuated with the idea. One night in August, 1784, he had the happiness of a moment's interview with the queen in the person of a girl who closely resembled her. De Lamotte had stated to the cardinal that the queen was desirous of obtaining this glorious necklace, and that not having sufficient money just then, she would sign an agreement to purchase it if the cardinal would become security. The cardinal consented. The agreement was approved and signed with the royal signature, also with that of the cardinal, who carried the treasure to Versailles, where it had been agreed the queen should send for it. In a few days De Lamotte and her husband were busily engaged in selling the separate diamonds in the necklace.

In a few months the cardinal found himself in the Bastille, where some of those by whom he had been duped already had been lodged. In May, 1786, the trial of the prisoners was brought to a close. De Lamotte was branded on each shoulder with the letter V (for voleuse, "thief"), and was sentenced to perpetual imprisonment. Her husband, who had fled to England, was sentenced to the galleys for life. The cardinal and the girl who had personated the queen were dismissed without punishment. The queen was supposed by the populace to have shared in the plot, and its odium was heaped on her, as she was taken to the guillotine.

**Diamond State, Delaware;** so named on account of its diminutive size, and thus, like a diamond, of proportionately high value.

**Diana,** the Roman goddess of chastity and hunting, the daughter of Jupiter and Latona, and the sister of Apollo or Phœbus, from which circum-

stance she is occasionally called Phebe, her usual name in heaven as Diana was on earth. This goddess was worshipped in many forms.

**Diapason,** a term in music by which the ancient Greeks designated the octave. The French use the term as equivalent to pitch. Diapason is also the English name given to the fundamental stops of the organ.

**Diaphoretics,** agents used in medical practice for producing a greater degree of perspiration than is natural, but less than in sweating. The Turkish bath and a large part of hydropathic treatment, diluent drinks, etc., are employed for this purpose.

**Diaphragm,** an inspiratory muscle and the sole agent in tranquil respiration. It is the muscular septum between the thorax and abdomen, and is composed of two portions, a greater muscle arising from the ensiform cartilage, and a lesser arising from the bodies of the lumbar vertebræ by two tendons.

**Diarbekr,** a town of Asiatic Turkey, capital of a vilayet of the same name; situated on the right bank of the Tigris; 390 miles N. W. of Bagdad. The town is surrounded by high strong walls, and commanded by a citadel built on a high basalt rock, against which the flat-roofed houses rise above each other in terraces. The vilayet has an area of 14,480 square miles and an estimated population of 471,500; the town has a population of about 38,000. See APPENDIX: *World War.*

**Diarrhœa,** a common disease, which consists of an increased discharge from the alimentary canal, the evacuations being but little affected, except in their assuming a more liquid consistence. This is generally preceded or accompanied by flatulence and a griping pain in the bowels, and frequently by nausea and vomiting.

**Diary,** a daily record of events or observations made by an individual. In it the man of letters inscribes the daily results of his reading or his meditations; to the mercantile man it serves the purpose of an order or memorandum book; while the physician finds it indispensable as a register of engagements.

**Diaz, Mrs. Abby (Morton),** an American story-writer; born in Plymouth, Mass., in 1821; was a member of the famous Brook Farm Association, and an earnest worker in social reforms. She died April 1, 1904.

**Diaz,** or **Dias, Antonio Goncalves,** a Brazilian poet; born in Caxias in 1823; died at sea in 1864 or 1866. His verses give proof of great originality, with tenderness of feeling and a lively wit.

**Diaz,** or **Dias, Bartholomeu,** a Portuguese navigator of noble birth who flourished during the latter half of the 15th century. He took a great interest in geographical discovery, and in 1486, the king gave him the command of two vessels with a view to following up the discoveries on the W. coast of Africa. Diaz soon reached the limit which had been attained in South Atlantic navigation, and first touched land in 26° S. lat. In 1500 he joined the expedition of Cabral, the discoverer of Brazil, but was lost in a storm May 29, 1500.

**Diaz, Felix,** a Mexican military officer, nephew of Porfirio Diaz; born in Oaxaca, in 1860; was educated at the Military Academy of Chapultepec; entered the army in 1889; prefaced a great military map of Mexico; served two terms in Congress; became Inspector-General of Police in Mexico City; headed an unsuccessful revolt in the army and seized Vera Cruz; and in 1913 announced himself a candidate for the Presidency, but nothing came of it.

**Diaz, Porfirio,** a Mexican statesman; born in Oaxaca, Sept. 15, 1830; received a classical education at the Oaxaca Institute, and had begun studying law when the war with the United States broke out; served through that struggle in the National Guard, and on the conclusion of peace made a study of military science. On Santa Ana's accession to the dictatorship, he left the army and practised law; but returned and bore a conspicuous part in the revolution of 1854; took the field to oppose the French troops and was taken prisoner, but made his escape; harassed Maximillian's troops till forced to surrender a second time at Oaxaca in 1865; besieged and captured Puebla in 1867,

and immediately marched on Mexico city, which surrendered to him June 21. In 1872 and 1876 he led revolutions against the government, and after three severe battles occupied the capital in the latter year. In 1877 he was elected president to fill the unexpired term of the fugitive president, Lerdo. According to the "plan of Tuxtepec," which he had proclaimed, he was ineligible to succeed himself. His secretary, General Gonzales, was elected president, and General Diaz was appointed Chief-Justice of the Supreme Court, and elected governor of Oaxaca. In 1884 he was reëlected president; in 1886 his partisans secured the abolition of the law prohibiting a second consecutive presidential term, and he was thereafter continuously reëlected, serving until May 25, 1911, when he presented his resignation to Congress in consequence of the revolution that had broken out under Francisco I. Madero. He went to Europe and finally settled in Paris, where he died July 2, 1915. His government of Mexico marked an era of marvelous progress, and pacification, and he was regarded as one of the greatest living Americans; though he failed to stem revolt in 1911.

**Diaz del Castillo, Bernal,** a Spanish chronicler of the conquest of Mexico; born about 1498; died in Mexico about 1593. His "True History of the Discovery and Conquest of New Spain" was published at Madrid in 1632.

**Dibdin, Charles,** an English lyric and dramatic poet and actor; born in Southampton in 1745. He opened a little playhouse in London, the Sans Souci Theater, and there brought out his own plays, enlivened with his own songs. His "Sea Songs" are popular favorites still. He died July 25, 1814.

**Dice** (plural of die), small cubes of ivory, marked on their sides with black dots, from one to six. The invention of dice is attributed to Palamedes (circa 1244 B. C.). But the use of cubes with numbered sides for gambling purposes is probably much earlier.

**Dick, Thomas,** a popular Scotch religious and scientific writer; born near Dundee, Nov. 24, 1774. His many books brought him great popularity both in England and the United States, but very little pecuniary return. In 1847 he received a crown pension. He died July 29, 1857.

**Dickens, Charles,** an English writer of fiction, and commonly regarded as England's greatest novelist, was born in Landport, Portsmouth, where his father at that time was connected with the dockyard, Feb. 7, 1812. His earliest years were passed chiefly in Chatham and in London, where his father, a very careless and improvident man, spent some time along with his household in a debtor's prison. Charles, about this period, and while still a mere boy, was a drudge in a blacking warehouse. He received little education, though he was for two years at a private school in Hampstead Road, London. About 1826 he became an attorney's clerk, and while in this position studied shorthand and other subjects, and finally was able to exchange his occupation for that of a newspaper reporter and critic. He exhibited eminent ability both as a reporter and a depicter of scenes in city life, and in 1835 he was engaged on the "Morning Chronicle," edited by Dr. Black, then one of the leading daily papers of the metropolis. On June 9, 1835, appeared the first of the series of "Sketches of Life and Character by Boz," which were published in the evening edition of that paper, under the title of "Thoughts about People, by Boz."

The "Sketches by Boz, Illustrative of Everyday Life and Everyday People," collected from the "Morning Chronicle" of 1835–1836, were published by Macrone in 1836, in two vols., with illustrations by George Cruikshank. From this publication may be dated the origin of Dickens' fame.

There is no space to recite here the many products of his genius familiar in every secular library.

In 1841 Dickens visited the United States for the first time. Here many aspects of society struck him in a curious light, and on his return he wrote "American Notes for General Circulation" (Chapman and Hall, 1842). His frank and grossly exaggerated comments aroused a certain amount of feeling. In 1845 Dickens

went to Italy, and paid a visit to Rome. On his return a new enterprise awaited him. The "Daily News" started on Jan. 1, 1846, was intrusted to his editorial management; but, despite his early training, this was an occupation uncongenial to his mind, and in a few months the experiment was abandoned.

He visited the United States a second time in 1867–1868 on a reading tour. The enthusiastic reception he met with caused him somewhat to modify the severe opinions he had expressed in his "American Notes," and a sort of apologetic note was prefixed to the next edition of them, with the desire expressed that it should accompany all future editions. He was one of the founders of the Guild of Literature, and in many other ways took an interest in charitable schemes, especially in connection with the literary profession. He died June 9, 1870, at his residence, Gad's Hill Place, near Rochester, England. In his will Dickens expressed a wish to be buried in "an inexpensive, unostentatious, and strictly private manner, without any public announcement of the time or place" of burial. So far as was consistent with the nation's desire to honor the great author, these directions were followed, but his modest request was not allowed to prevent his interment in Westminster Abbey.

**Dickens, Charles,** an English editor, eldest son of Charles Dickens; born in 1837. He was educated at King's College, Eton, and at Leipsic; became assistant to his father as editor of "All the Year Round," and subsequently chief partner in a printing firm. He edited a "Life of Charles Mathews," "The Dictionary of London," "Paris and the Thames," and a complete edition of his father's works. He died in West Kensington, England, July 20, 1896.

**Dickens, J. L.,** an American clergyman; born in Gibson co., Tenn., March 3, 1853; was graduated at Bethel College in 1879; and held pastorates in the Cumberland Presbyterian Church. He taught and was president of Bethel College, Trinity University, and of Quanah College, Texas. He was also superintendent of the South Central District of the American Society of Religious Education.

**Dickey, Charles Andrews,** an American clergyman; born in Wheeling, W. Va., Dec. 25, 1838; was educated at the Monongalia Academy, Morgantown, Va., and at Washington College, Pennsylvania; graduated at the latter in 1858; studied at the United Presbyterian Theological Seminary, and became pastor of the Bethany Presbyterian Church, Philadelphia, in 1893. He became president of the Presbyterian Hospital, Philadelphia, in 1883; and was frequently a member of the General Assembly, in which he bore a distinguished part; and was moderator of the Presbyterian General Assembly, in 1900–1901. During his pastorate in Philadelphia he was long prominently associated with all the benevolent operations of his Church. He died in 1910.

**Dickinson, Anna Elizabeth,** an American orator, novelist, and playwright; born in Philadelphia Oct. 28, 1842. At the outbreak of the Civil War she became known as a speaker, and under the stimulus of the events became an orator of great power and persuasiveness. She has for some time lived in retirement.

**Dickinson, Daniel Stevens,** an American lawyer; born in Goshen, Conn., Sept. 11, 1800. He was admitted to the New York bar, where he soon became prominent; was elected to the State Senate in 1836, and became a leader in the Democratic party, which made him lieutenant-governor in 1842, and in 1844 sent him to the United States Senate. He was brought forward as a candidate for the presidency in 1852, but without success. He spent the later part of his life at Binghamton, N. Y., in the practice of his profession. He died in New York city April 12, 1866.

**Dickinson, Don M.,** an American lawyer; born in Port Ontario, N. Y., Jan. 17, 1846; removed to Detroit, Mich., graduated at the Law Department of the University of Michigan, and began the practice of law in Detroit, and later practised in Washington, D. C. He was conspicuous in politics as a Democrat; was secretary of the Democratic State Central Committee, which ran the

Greeley campaign in 1872; withdrew from the Democratic party, but was won back by Mr. Tilden; was Postmaster-General of the United States in 1887–1889; senior counsel for the United States on the Bering Sea Claims in 1896–97; and a member of the Court of Arbitration over the controversy between the United States and Salvador in 1902.

**Dickinson, Jacob McGavock,** an American lawyer; born in Columbus, Miss., Jan. 30, 1851; studied law in New York, Leipzig, and Paris; was admitted to the bar in 1874; practiced in Nashville, Tenn., in 1874–1899, and in Chicago in 1899–1909; served several times on the bench of the Tennessee Supreme Court; was United States assistant attorney-general in 1895–1897, United States counsel before the Alaska Boundary Tribunal in 1903, and general counsel of the Illinois Central Railroad Co. in 1901–1909; served as Secretary of War under President Taft in 1909–11.

**Dickinson, John,** an American political writer and statesman; born in Maryland, Nov. 13, 1732. He wrote a series of State papers that had great influence in their day. Dickinson College was named in his honor. He died Feb. 14, 1808.

**Dickinson, Mary Lowe,** author and educator; born at Fitchburg, Mass., in 1839. She became a teacher in Hartford Female Seminary; principal of the Van Norman Institute, New York; and professor and lecturer in belles-lettres at Denver University. She was prominently identified with various national associations of women, and is honorary president of the National Council of Women. She was associate editor of "Lend a Hand Magazine," and for 14 years edited "The Silver Cross." Died in 1914.

**Dickinson, College,** a co-educational institution in Carlisle, Pa.; founded in 1783, under the auspices of the Methodist Episcopal Church.

**Dictator,** a magistrate of ancient Rome, created in times of great emergency, distress, or danger, and invested, during the term of his office, with absolute and unlimited power. The office was abolished by law after the death of Cæsar.

**Didactic,** or **Didactical,** a term applied to every species of writing, whether in verse or prose, the object of which is to teach or explain the rules or principles of any art or science.

**Diderot, Denis,** a French philosopher, foremost of the "Encyclopædists"; born in Langres, Oct. 5, 1713. He died July 31, 1784.

**Didier, Charles,** a French poet and novelist (1805–1864); born in Geneva. He wrote some novels designed to awaken patriotic sentiment in Italy, and to make known the struggles of the carbonara and other revolutionists against Austrian and papal dominion.

**Didier, Eugene Lemoine,** an American prose-writer; born in Baltimore, Md., Dec. 22, 1838. He published the "Life of Edgar A. Poe"; "Life and Letters of Madame Bonaparte," etc.

**Dido,** or **Elissa,** the reputed founder of Carthage. She was the daughter of a King of Tyre, and after her father's death her brother Pygmalion murdered her husband Sicharbas, or as Virgil calls him Sichæus, with the view of obtaining his wealth; but Dido accompanied by many Tyrians of her party, fled with all the treasure over sea, and landing on the coast of Africa founded Carthage about 860 B. C. The story is told by Virgil with many inventions of his own in the "Æneid" (books i and ii).

**Didot,** a famous house of printers, booksellers, and typefounders in Paris. The founder was FRANCOIS DIDOT, born in 1689, died 1757. Of his sons FRANCOIS-AMBROISE (born 1720, died 1804), and PIERRE-FRANCOIS (born 1732, died 1795) the first distinguished himself in the typefounding art as an inventor of new processes and machines, the second was equally eminent by his bibliographical knowledge, and contributed much also to the advancement of printing. PIERRE (born 1761, died 1853) succeeded his father Francois-Ambroise in the printing business. He made himself famous by his magnificent editions of classic authors in folio, among which his "Virgil" (1798) and his "Racine" (1801), may be particularly mentioned. He did much also for the improvement of types. He is known

also as an author. FIRMIN (born 1764, died 1836), the brother of Pierre, took charge of the type-founding, was the inventor of a new sort of script, and an improver of the stereotype process. AMBROISE-FIRMIN (born 1790, died 1876) and HYACINTHE FIRMIN (born 1794, died 1880) occupied a distinguished place among the publishers of Paris.

**Die,** a word with various applications. (1) In punching-machines, a bed-piece which has an opening the size of the punch, and through which the piece is driven. In nut-machines the nut-blanks may be made by one die and punched by another. (2) In forging, a device consisting of two parts which coact to give to the piece swaged between them the desired form. (3) In sheet-metal work, a former and punch or a cameo and intaglio die between which a piece of sheet-metal is pressed into shape by a blow or simple pressure. In coining, both dies are intaglio, so as to make a cameo or raised impression. The upper die has the obverse, the face, which is often the bust of the sovereign or national emblem. The lower die has the reverse, with an effigy, legend, value, etc., as the case may be.

**Diebitsch-Sabalkanski, Hans Karl,** a Russian general, born in Grossleippe, in Silesia, in 1785; was educated at the military school of Berlin, but in 1801 quitted the Prussian service for that of Russia. He was present at the battles of Austerlitz and Friedland; served with distinction in the campaign of 1812; and was made lieutenant-general at the age of 28. He had the chief command in the Turkish war of 1828–1829; stormed Varna; and made the famous passage of the Balkans, for which the surname of Sabalkanski was conferred on him. In 1830 he commanded against the Poles. He died June 9, 1831.

**Diedenhoffen,** a fortified town of Germany in Lorraine, called by the French Thionville; on the Mosel river, 23 miles N. of Metz. The town was fortified by Vauban, and after a severe bombardment surrendered to the Prussians in 1870. It was here that the German Crown Prince was said to have defeated the French. See APPENDIX: *World War.*

**Dieffenbach, Johann Friedrich,** a German surgeon; born in Konigsberg, Feb. 1, 1794; became Professor of Surgery at Berlin, where he died, Nov. 11, 1847. He was distinguished as an operator, especially in the art of forming by transplantation new noses and lips.

**Dielmann, Frederick,** an American painter; born in Hanover, Germany, Dec. 25, 1847; removed to the United States in childhood, and graduated at Calvert College. He was a topographer and draughtsman in the United States Engineer Department in 1866–1872. He studied art under Diaz at Munich, and established a studio in New York in 1876. He was the designer of the Mosaic panels, "Law" and "History" in the new Congressional Library at Washington, D. C.

**Diemen, Anton Van,** a Dutch administrator; born in 1593. Having gone to India, he speedily rose to the highest dignities; and was at length made governor-general. Abel Tasman, whom he sent with a vessel to the South Seas in 1642, gave the name of Van Diemen's Land to the island now called Tasmania. Van Diemen died in 1645.

**Dieppe,** a seaport town of France, Department of Seine-Inferieure, on the English Channel, at the embouchure of the Arques, 93 miles N. N. W. of Paris. In early times Dieppe was the chief port of France, but its prosperity diminished after the revocation of the Edict of Nantes (1685). Pop. (1911) 23,973.

**Dies Iræ** (Lat., day of wrath), the name commonly given, from the opening words, to a celebrated Latin hymn describing the final judgment of the world. This hymn has been frequently translated into English.

**Dieskau, Baron John Erdman,** a German military officer; born in Saxony in 1701. He was a soldier of fortune from his youth, having acted as aide to Marshal Saxe. In 1755 he was sent to Canada at the head of a French force. Making a raid into New England he encountered a body of Massachusetts militia by whom he was signally defeated in a bloody battle, wounded, and taken prisoner. He died near Paris, Sept. 8, 1767.

**Diet,** a meeting or assembly of delegates or dignitaries convened and held from day to day for legislative, ecclesiastical, political, or administrative purposes; specifically, the legislative assemblies of the German Empire, Austria, the Cantons of Switzerland, etc.

**Diet,** a course of eating and drinking, especially when followed with reference to hygienic effect.

**Diez, Friedrich Christian,** a German critic and historian of literature, founder of Romance philology; born in Giessen, March 15, 1794; died in Bonn, May 29, 1876.

**Differential Calculus,** that branch of mathematics which has for its object the explanation of the method of deriving one determinate function from another by the process of differentiation.

**Differential Thermometer,** an instrument for determining very minute differences of temperature.

**Digby,** a small seaport of Nova Scotia, on St. Mary's Bay, reputed for its curing of a variety of small herrings or pilchards ("Nova Scotia sprats"). Population, 1,150.

**Digby, Sir Kenelm,** an English natural philosopher; born in Gayhurst, near Newport Pagnell, July 11, 1603. He was one of the first members of the Royal Society (1663), and died June 11, 1665.

**Digestion,** the change which food undergoes in order to prepare it for the nutrition of the animal frame. In the higher animals the process is effected through the digestive system.

**Dighton Rock,** near Dighton, Mass., a greenstone boulder with an almost obliterated inscription supposed to be Norse, or Indian.

**Digit** (a finger), a term applied to the 10 symbols of number, 0, 1, 2, etc., to 9; thus, 305 is said to be a number of three digits. Numbers were originally indicated by the fingers, and hence the name. Astronomers use digit to signify a twelfth-part of the diameter of the sun or moon, and speak of an eclipse of seven digits, meaning that seven-twelfths of the diameter is covered.

**Digitalis,** a genus of plants, natives of Europe and Western Asia. There are numerous species, all of them tall herbs. One is the common fox-glove. The dried leaves of the fox-glove are used in medicine, as powder, infusion, or tincture, or in the form of the active principle, digitaline.

**Digitigrada,** a section of the order Carnivora, comprising the lions, tigers, cats, dogs, etc., in which the heel is raised above the ground, so that the animals walk more or less on the tips of the toes.

**Dijon,** the chief town in the French Department of Cote-d'Or, formerly capital of the old duchy of Burgundy, lies, spread out on a fertile plain at the foot of Mont Afrique (1,916 feet), at the junction of the Ouche and Suzon, and on the Canal de Bourgogne, 196 miles S. E. of Paris by rail. Its importance as a railway center has rendered it of consequence in the inner line of French defenses. On the death of Charles the Bold it came with Burgundy into the possession of France in 1477. In October, 1870, after a sharp engagement before the city, Dijon capitulated to a German force. There was again severe fighting here in January, 1871. Pop. (1911) 76,847.

**Dike,** or **Dyke,** a word variously used to represent a ditch or trench, and also an embankment, rampart, or wall. It is specially applied to an embankment raised to oppose the incursions of the sea or of a river, the dikes of Holland being notable examples of works of this kind.

In the United States the term dike is almost wholly restricted to the structures of more or less permanence built in various ways in the bed of a stream to regulate its flow, narrow the low water cross section, concentrate the current, increase its local scouring effect and thereby deepen the river channel. The earthen embankments designed to restrain the flood waters are called levees. The most notable examples are found along the Mississippi river where it winds its way through the alluvial plain which it has built up below the mouth of the Ohio river. These levees are placed some little distance back from the river, and according to the local conditions vary in height from two or three feet to over 20 feet. The crowns of the levees are from 8 feet to 10

feet wide with side slopes of about 1 in 3. Levees over 12 feet in height are generally strengthened by a mass of earth on the land side forming a banquette. Levee building began many years ago along the lower part of the river and it has been carried on practically continuously ever since. The length of the levee lines along the Mississippi river in 1900 was about 1,300 miles, and the area protected from overflow about 27,000 square miles.

**Dilemma,** in logic, an argument in which the same conclusion may be drawn from two contrary propositions.

**Dilettante,** a lover or admirer of the fine arts; an amateur; frequently applied half in contempt to one who affects a taste for or skill in art, science, or literature.

**Dilke, Charles Wentworth,** an English publicist and critic; born Dec. 8, 1789. A journalist and book reviewer of celebrity. He died in Hants, Aug. 10, 1864.

**Dilke, Sir Charles Wentworth,** an English publicist and critical and political writer; born in London, Sept. 4, 1843. A brilliant but checkered political career was varied by literary work. He died Jan. 26, 1911.

**Dilke, Emilia Frances, Lady,** an English art critic and miscellaneous writer; wife of Sir Charles; chief work, "The Renaissance in France," illustrated by herself. Died in 1904.

**Dillmann, Christian Friedrich August,** a German Orientalist; born in Illingen, in Wurtemberg, April 25, 1823. In 1864 he was called to the chair of Old Testament Exegesis at Giessen, which in 1869 he resigned to become Hengstenberg's successor at Berlin. Dillmann was beyond question the first authority in Europe on the Ethiopic languages. He died July 4, 1894.

**Dillon, John,** an Irish politician; son of John Blake Dillon (1816–1866); born in New York in 1851; was educated at the Catholic University of Dublin, after which he became a doctor. He early identified himself with the Parnellite movement, and in 1880 was elected to Parliament for County Tipperary. In the House of Commons Dillon soon became prominent for the violence of his language, while speeches delivered by him in Ireland led to his imprisonment in 1881, 1881–1882, and 1888. From 1883 to 1885 he was absent from political life on account of ill-health; but in the latter year he reappeared and was elected for East Mayo. He was one of the most prominent promoters of the "Plan of Campaign." In 1896–1900 he was chairman of the main section of the Nationalist party; in 1917, M. P. for Mayo Co., E.

**Diluents,** remedies that increase the proportion of fluid in the blood. They are employed in fevers to lessen thirst and increase secretion. Water is the only real diluent.

**Diluvium,** formerly applied to accumulations of gravel, sand, clay, etc.; supposed to be the result of the Noachian deluge; then applied to all masses of comparatively recent age, apparently the result of powerful aqueous agency; now the name is verging to extinction, drift having taken its place.

**Dimension,** in algebra, a literal factor of a product or term; also called a degree. A simple equation is said to be of one dimension. A quadratic of two, a cubic of three, and so on. In geometry, extension in a single line or direction. A line is extended in one direction, or has one dimension, that is length; a surface is extended in two directions, or has two dimensions, length and breadth; a solid is extended in three directions, or has three dimensions, length, breadth, and height or thickness.

**Dimity,** a heavy, fine, white cotton goods, with a crimped or ridged surface; plain, striped; or cross-barred.

**Dingelstedt, Franz von, Baron,** a German poet and dramatist; born in Halsdorf, in Upper Hesse, June 30, 1814. He died in Vienna, May 5, 1881.

**Dingley, Nelson,** an American legislator; born in Durham, Me., Feb. 15, 1832; received a high school education; taught school till 1851; studied at Waterville College (now Colby University), and later at Dartmouth College, and was graduated at the latter in 1853; admitted to the bar in 1856; purchased the Lewiston "Journal" in 1856; added a daily edition in 1865; and was its editor and proprietor till his death. He was elected

to the State Legislature in 1861; served in that body till 1865 and in 1868 and 1873, and was Speaker of the House in 1864–1865. He was elected governor of Maine in 1873 and reëlected in 1874; and was a member of Congress from 1881 till his death. From the beginning of his Congressional career he was conspicuous as an advocate of the principle of protection and was author of the Dingley Tariff Bill of 1897. In 1898 he was appointed a member of the Joint High Commission. He died in Washington, D. C., Jan. 13, 1899.

**Dingo,** the native wild dog of Australia, of a wolf-like appearance and extremely fierce. It is very destructive to the flocks, killing more than it eats.

**Dinka,** a powerful tribe of Negritos who live on both sides of the White Nile between lat. 6° and 12° N. Their territory covers 60,000 square miles. They are intelligent, have some skill in making articles for household use, and also follow agriculture. Each village is governed by its own chief.

**Dinornis,** a genus of fossil birds named by Professor Owen in 1839, after the examination of a femur brought from New Zealand. They are the moas of the Dinornithidæ family.

**Dinosauria,** a group of colossal fossil lizards found in Mesozoic rocks, and largely in the Laramie Stage of Western North America. They comprise the Sauropoda, Theropoda, and Predentata.

**Dinotherium,** or **Dinothere,** a genus of fossil mammals. The D. giganteum, of which the entire skull and lower jaws were found in Miocene sand at Eppelsheim on the Rhine by Klipstein, was apparently larger than the elephant. Its tusks, which projected from the lower jaw, curved downward, and were used by the animal, which was semi-aquatic, to support its head on the shore.

**Dinsmore, Hugh Anderson,** an American lawyer; born in Benton Co., Ark., Dec. 24, 1850. He was minister-resident and consul-general in the kingdom of Korea in 1887–1890; and a member of Congress in 1893–1905.

**Dinwiddie, Robert,** a British official and lieutenant-governor of Virginia in 1752–1758; born in Scotland, about 1690. During his official career he recommended the annexation of the Ohio Valley and the erection of forts to secure the W. frontier against the French. He was one of the most earnest supporters of the French and Indian War. He died in Clifton, England, Aug. 1, 1770.

**Diocese,** the territorial district or portion of the Church forming the spiritual jurisdiction of a bishop.

**Diocletian, C. Valerius Diocletianus** (surnamed Jovius), a man of mean birth, a native of Dalmatia, proclaimed Emperor of Rome by the army in 284 A. D. He defeated Carinus in Mœsia (286), conquered the Alemanni, and was generally beloved for the goodness of his disposition; but was compelled by the dangers threatening Rome to share the government with M. Aurelius Valerius Maximian. In 292 C. Galerius and Constantius Chlorus were also raised to a share in the empire, which was thus divided into four parts, of which Diocletian administered Thrace, Egypt, Syria, and Asia. As the result of his reconstitution of the empire there followed a period of brilliant successes in which the barbarians were driven back from all the frontiers, and Roman power restored from Britain to Egypt. In 305, in conjunction with Maximian, he resigned the imperial dignity at Nicomedia, and retired to Salona in Dalmatia, where he cultivated his garden in tranquility till his death in 313. In the latter part of his reign he was induced to sanction a persecution of the Christians.

**Diodati, Giovanni,** an Italian Protestant clergyman; born in Lucca, about 1576, of a noble Catholic family. He is most celebrated for a translation of the Bible into Italian, which is superior to his translation of it into French. He died in Geneva, Oct. 3, 1649.

**Diodorus Siculus,** a native of Agyrium, in Sicily, who wrote a "Universal History" in 40 books, of which only 15 books and a few fragments remain. It is a laborious but uncritical compilation of most heterogeneous materials, and occupied him 30 years. It is still valued for the portions which it has preserved to us

of many lost works. He flourished about B. C. 10.

**Diogenes,** celebrated Greek cynic; was a native of Sinope, in Pontus, where he was born 413 B. C. He was banished from his country for coining false money, and repaired to Athens, where he studied philosophy under Antisthenes, and surpassed his master in the rudeness of his manners and his austere views of human nature. He walked about the streets with a tub on his head, in which it is said he lodged at night. He is the type of cynicism, and for his zeal as a moralist has been called the Mad Socrates. Being on a voyage, he was taken by pirates and sold into slavery at Corinth, where he became tutor to the sons of a rich citizen, but died in the greatest misery, B. C. 324. His reputation procured him a visit from Alexander the Great, who asked Diogenes if there was anything in which he could gratify him. "Only," he answered, "do not stand any longer between me and the sun." Some moral "sentences" are extant under his name, but they are thought to be apocryphal. The inhabitants of Sinope raised statues to his memory, and the marble figure of a dog was placed on a high column erected on his tomb.

**Diogenes Laertius,** the author of a sort of history of philosophy, appears to have been born in Laerte, in Cilicia, and to have lived toward the close of the 2d century after Christ.

**Diomede Islands,** a group of three small islands in Bering's Strait, midway between Asia and America.

**Dion Cassius,** a historian of the 3d century; born in Bithynia, went to Rome about 180; was appointed successively to many high offices; was twice consul; and wrote, in Greek, the "History of Rome," from the arrival of Æneas in Italy to A. D. 229.

**Dion Chrysostomos** (Dion the Golden Mouthed), a celebrated Greek rhetorician, flourished the 1st century of Christian era. He left about 80 orations or discourses on morals and politics, which are admired for their elegance of style. He died A. D. 117.

**Dionysia,** festivals in honor of Dionysius, or Bacchus, which originating in Egypt, were introduced into Greece by Melampus, B. C. 1415.

**Dionysius the Areopagite,** a native of Athens, and a member of the Areopagus, where he sat when St. Paul was brought before it, and made his famous speech respecting the "unknown God," which was the means of the conversion of Dionysius. He is supposed to have suffered martyrdom 95 A. D.

**Dionysius I.,** the Elder, tyrant of Syracuse; was born B. C. 430. He served in the war with the Carthaginians, had himself appointed general, and, in 405, sole emperor, and head of the republic. He carried on several wars of conquest. Dionysius, like some other tyrants, was a patron of literary men and artists, aspired to literary fame, and contended for the prize at the Olympic games. He erected many fine temples. He died in 367.

**Dioscorides, Pedacius,** or **Pedanius,** a Greek physician; was a native of Anazarba, in Cilicia, and, probably in the 2d century of our era, accompanied the Roman armies as physician through many countries. He has left a great work on materia medica, in five books, in which he treats of all the then known medicinal substances and their properties, real or reputed. His authority in botany and materia medica was long undisputed.

**Dioscuri,** the classical name for Castor and Pollux, twin brothers (Pollux being the son of Zeus) and tutelary deities of wrestlers, horesmen, and navigators. Their transplantation to the sky as one of the 12 constellations of the zodiac (the Twins) is a celebrated allegory of mythology. They are sometimes styled Tyndaridæ, because Tyndarus was the nominal father of both.

**Dip,** the inclination or angle at which strata slope or dip downward into the earth. This angle is measured from the plane of the horizon or level, and may be readily ascertained by the clinometer. The opposite of dip is rise, and either expression may be used, according to the position of the observer.

**Diphtheria,** a contagious and (in its severe forms) malignant disease, caused by a specific bacillus and generally characterized by the formation of a fibrinous false membrane in the throat.

The period of incubation is usually from two to seven days. The disease begins by malaise, feeling of chilliness, loss of appetite, headache and more or less fever; soon the throat feels hot and painful and the neck is stiff and tender. If seen early, the throat is red and swollen, but a false membrane of yellowish or grayish color quickly appears in spreading patches, usually first on the tonsils, whence it often spreads to the pillars of the fauces, uvula and back of the throat, and may even extend down the œsophagus or gullet; extension of the membrane into the nasal cavities is a grave symptom. There is usually enlargement of the glands at the angle of the jaw, and albuminuria generally occurs at some stage of the disease. Diphtheritic membrane may be formed on any mucous surface, or even on a wound; if it extends into the larynx it gives rise to cough and difficulty in breathing. The throat affection is often accompanied by a low and very dangerous form of fever, with quick, feeble pulse and great and rapid loss of the patient's strength, which is still further reduced by the inability to take food; in other cases, the disease is fatal by paralysis of the heart or by suffocation due to invasion of the larynx.

Diphtheria is contagious. It may occur as a complication of scarlet fever, measles, and other infectious diseases. All gradations in the intensity of the disease from mild sore throat to septic and gangrenous forms occur. Damp and temperate climates seem to favor its development. Insanitary conditions favor its occurrence, but the disease may appear under the most favorable hygienic surroundings. One attack affords little or no protection against its recurrence.

The ways in which diphtheria bacilli may be conveyed from sick to healthy persons are almost countless. In ordinary breathing the expired breath contains no germs, but in speaking and especially in coughing, a fine spray is emitted which may contain the bacilli and thus convey the disease. All sorts of articles, such as handkerchiefs, toys, drinking utensils, furniture, clothing, bed-linen and the like, may become contaminated with the bacilli and be the means of spreading the disease.

The discovery of the diphtheria bacillus has led to the introduction of a new and most successful method of treatment of the disease, known as serum-therapy or the antitoxin treatment. The establishment of the principles and the introduction of this treatment are due especially to Behring of Germany and Roux of Paris. The underlying principle of the treatment is based on the fact that, if a susceptibl animal is inoculated first with small and then with increasing doses of the toxin produced by the bacillus, the blood of the animal is found to contain a substance called anti-toxin, which has the power of neutralizing or rendering harmless the toxin. In order to obtain large quantities of the healing serum a horse is generally selected for the process of immunization. By proper methods very powerful antitoxins can be obtained. Dr. William H. Welch, of the Johns Hopkins University, in 1895, in an analysis of over 7,000 cases of diphtheria treated by antitoxin found that the fatality was reduced by this treatment by over 50 per cent of the previous death-rates; he concluded that the antitoxin serum is a specific curative agent for diphtheria, surpassing in its efficacy all other known methods of treatment for this disease. Since his report, this conclusion has been confirmed and even more favorable results have been obtained.

WILLIAM H. WELCH, M. D.

**Diplodocus,** according to Marsh, a saurian-footed, herbivorous dinosaur found in the American Jurassic deposits. The length of skull of this species was about 21 inches, of brain about 3 inches, and of body 50 feet. The animal is supposed to have been a hippopotamus-like wader, and to have lived on vegetation in the water.

**Diploma,** a writing or document conferring some power, authority, privilege, or honor, usually under seal and signed by a duly authorized official. Diplomas are given to graduates of a university on their taking their degrees; to clergymen who are licensed to officiate; to physicians, civil engineers, etc., authorizing them to practise their professions.

**Diplomacy,** the science or art of conducting negotiations, arranging

treaties, and carrying on other important business between nations; the branch of knowledge which deals with the relations of independent States to one another; the agency or management of envoys accredited to a foreign court; the forms of international negotiations.

**Dippel, Johann Conrad,** a German theologian and alchemist; born in 1672. He studied theology, defended the orthodox party against the Pietists, led a turbulent life at Strasburg, and then joined the Pietists until an unfortunate tractate placed him in disfavor with both parties. He then turned his attention to alchemy, and during a residence at Berlin produced the oil called after him, from which indirectly followed the discovery of Prussian or Berlin blue. After various adventures and wanderings in Sweden, Denmark, and Germany, he died in 1734.

**Dippel's Oil,** the rectified form of the black fetid oil, containing ammonic carbonate, which can be obtained by the destructive distillation of animal matter, such as stag's-horn, ivory, or blood. The cruder form was used in medicine, despite its appearance and odor, until Dippel refined it. His oil was formerly prescribed as an antispasmodic and diaphoretic, and as a hypnotic.

**Dipper,** a genus of birds in the thrush family, distinguished by an almost straight, compressed, sharp-pointed bill, by the possession of a nostril valve, and still more by their peculiar manners and habits. They frequent clear, pebbly streams and lakes, feeding chiefly on mollusks and on aquatic insects and their larvæ, which they seek even under water, diving with great facility, and moving about by help of the wings.

**Dipper,** a name given to the seven stars in the constellation of the Great Bear, from their being arranged in the form of a dipper, or ladle.

**Dipping Needle,** or **Inclination Compass,** an instrument for measuring the magnetic dip or inclination; that is, the angle which a magnetized needle, free to move in the plane of the magnetic meridian, and about a horizontal axis, makes with the horizontal plane at the place.



**Dipsomania,** a term denoting an insane craving for intoxicating liquors, when occurring in a confirmed or habitual form.

**Direct Primary,** a term denoting a method of making nominations for public elective offices that has recently been adopted in many parts of the United States. Instead of holding nominating conventions, voters meet at their usual polling places and vote for the persons they desire to have become candidates. Persons winning in these primary contests then have to go before the whole body of voters and risk election in the usual manner.

**Directors,** persons elected to meet together at short fixed intervals and consult about the affairs of corporations or joint-stock companies.

**Directory,** the name given to a body of five officers to whom the executive authority in France was committed by the constitution of the year III. (1795). The two legislative bodies, called the councils, elected the members of the directory: one member was obliged to retire yearly, and his place was supplied by election. This body was invested with the authority which, by the constitution of 1791, had been granted to the king. By the revolution of the 18th Brumaire the directory and the constitution of the year III. were abolished. It was succeeded by the consulate.

**Dirhem,** the name under the caliphs for a weight of silver equivalent to about 45 grains, and was also used for precious stones and medicine in Arabia, Persia, Egypt, and Turkey. As a coin the value varied, but may be given at 5½d. under the caliphs. In Turkey, the modern dirhem is equivalent to the French gramme.

**Dirksen, Heinrich Eduard,** a German jurist; born 1790; died 1868; was an expert, and the author of standard works, on Roman law.

**Discharge,** in architecture, the relieving part of a wall, or a beam or other piece of timber, from the superincumbent weight by means of an arch thrown over it. In hydraulics, the issuing direction of water from a reaction or turbine wheel; as, the outward discharge, or Fourneyron turbine, the vertical discharge or Jonval turbine;

the center discharge, etc. In bankruptcy, a writing or document certifying that a bankrupt has satisfactorily passed the necessary forms, and is thereby discharged from all further responsibility for the debts contracted by him previous to his bankruptcy. In the military and naval services, a document given to each soldier or sailor on his dismissal from or quitting the service, in which are detailed full particulars as to his length of service, conduct, reason for discharge, etc.

**Disciple,** literally, one who learns anything from another; and hence, the followers of any teacher, philosopher, or head of a sect. In this sense the word is sometimes used in Scripture, as when we read of the disciples of Moses, of John, of Christ. Generally, however, it is used with reference to the last of these — the followers of Jesus. Sometimes all who received the doctrines of Christ are called disciples, but in a more limited sense, it is applied to the 70, or 72, persons who were His more immediate followers and attendants.

**Disciples of Christ.** See CHRISTIANS.

**Disco,** an island on the W. coast of Greenland. It is very mountainous, and contains large coal deposits.

**Discobolus,** in classical antiquity, a thrower of a discus, or quoit; a quoit-player; specifically, the name given to the famous Greek statue of the quoit-thrower, preserved among the Townley Marbles in the British Museum.

**Discord,** in music, an inharmonious combination of notes which produces a mental desire for a further combination to effect a satisfactory solution.

**Discount,** a deduction made in the payment of a bill or settlement of an account for ready or prompt payment; a sum deducted at a certain rate per cent. from the credit price of any article in consideration of prompt payment. The term discount is applied both to the amount deducted and the rate per cent. at which the deduction is calculated or allowed. Discount in banking is a charge made at a certain rate per cent. for the interest of money advanced on a bill or other document due at some future time.

**Discus, Disc,** or **Disk,** among the Greeks and Romans a quoit of stone or metal, convex on both its sides, sometimes perforated in the middle. The players aimed at no mark, but simply tried to throw the quoit to the greatest possible distance. It was sometimes furnished with a thong of leather to assist in the throwing.

**Disease,** any alteration of the normal vital processes of the body under the influence of some unnatural or hurtful condition, called the morbific cause.

**Disestablishment,** the act of causing to cease to be established; specifically a depriving a Church of its rights, position, or privileges as an established Church; to withdraw a Church from its connection with the State. A bill for the purpose described was introduced into the British House of Commons by Mr. Gladstone on March 1, 1869. The second reading was carried on the 24th by 368 to 250 votes, and the third on May 31, by 361 to 247. The first reading took place in the House of Lords on the motion of Earl Granville, on June 1, 1869, and after several vicissitudes and some modifications the bill was accorded by the Commons. It received the royal assent July 26, 1869, and the disestablishment of the Irish Church took effect Jan. 1, 1871. The disestablishment of the Catholic Church in France (q.v.) was effected Dec. 11, 1906.

**Dishonor,** in commerce and banking, a default of payment. If, when a bill is presented for acceptance, the person on whom it is drawn refuses to accept it, or if, when presented for payment, the acceptor refuses to pay it, or if a promissory note is not paid when it falls due, such default is termed dishonor; and the holder of the bill or note is bound to give notice to the parties who drew the bill or note, or to those who have negotiated it. This notice is called notice of dishonor or protest, and if the holder fails to give notice of the same, the parties who would otherwise have been responsible are discharged from their liability.

**Disinfection,** the act of purifying from infectious and contagious matter. Agents which can destroy the specific poisons of infectious diseases and

prevent them from spreading are called disinfectants. The action of disinfectants is therefore analogous to that of antiseptics, and consists of the destruction of low forms of life.

Thermal and chemical means are used in disinfection. Hot air and steam are included in thermal disinfection, while chemical disinfection destroys the infective particles by applying substances of a chemical nature. Heat, and especially fire, is the best disinfectant. Clothing which can be boiled without injury is thereby deprived of infectious germs. Cold is a natural disinfectant. The first frost kills an epidemic of yellow fever; but a temperature of zero does not kill the infction of anthrax, typhoid, tuberculosis, or smallpox.

Among the most important disinfectants for practical purposes are chlorine, carbolic acid, sulphurous acid, solutions of manganate, and of permanganate of potash, of chloride of zinc; and formaldehyde gas generated from formalin pastilles.

**Dislocation,** a surgical term applied to cases in which the articulating surfaces of the bones have been forced out of their proper places. The particular dislocation takes its name either from the joint itself or its furthest bone, and is called compound when accompanied with an external wound. In geology it signifies the displacement of parts of rocks or portions of strata from the situations they originally occupied.

**Dismal Swamp,** a large tract of marshy land, beginning a little S. of Norfolk, Va., and extending into North Carolina; containing 150,000 acres; 30 miles long, from N. to S., and 10 broad. This tract was entirely covered with trees, with almost impervious brush-wood between them, but it has now in part been cleared and drained. In the midst of the swamp is Drummond's Lake, seven miles in length, the scene of Thomas Moore's "Lake of the Dismal Swamp." In 1899, the Dismal Swamp canal, connecting Chesapeake Bay with Albemarle Sound, was reopened for navigation. It extends from the village of Deep Creek, Va., to South Mills, N. C., a distance of 22 miles; and is one of the most important links in the chain of inland waterways extending along the coast from New York to Florida, as it enables ships to avoid the dangers of Cape Hatteras.

**Dispensation,** the act by which an exception is made to the rigor of the law in favor of some person. The Pope, according to Roman Catholic view, may release from all oaths or vows, and may sanction a marriage within the prohibited degrees of the Mosaic law, or exempt from obedience to the disciplinary enactments of the canon law. In England the monarch claimed, in former times, a similar dispensing power in civil law, but the prerogative was so much abused by James II. that it was abolished by the Bill of Rights. The power of commuting sentences in capital cases is the only form in which the dispensing power still exists in England.

**D'Israeli, Isaac,** an English historian; father of Lord Beaconsfield (q. v.); born in Enfield, Middlesex, 1766. His father, Benjamin D'Israeli, was the descendant of a family of Spanish Jews which had settled at Venice in the 15th century to escape the persecution of the Inquisition. He went to England in 1748, made a large fortune by commerce, and married a lady, also of Jewish extraction. The son was intended to follow a similar career to his father, but notwithstanding parental opposition devoted himself to literature, and became famous for his historical and literary illustrations, as shown in his "Curiosities of Literature" and other works. He died 1848.

**Dissection,** the act or science of cutting up or dissecting an animal or vegetable body for the purpose of examining the structure and use of its several organs and tissues.

**Dissenters,** the common name by which in Great Britain all Christian denominations, excepting that of the Established Church, called the Church of England, are usually designated. In Acts of Parliament the name comprises only Protestant dissenters, the Roman Catholic Church, which also dissents from the Church of England, being mentioned under its own name. The chief dissenting bodies are the Congregationalists, Baptists, Presbyterians and all varieties of Methodists. They are often called Nonconformists. They now are united for co-operative work by a council of Federation.

**Dissolution.** In English politics, the act of dissolving or putting an end to the existence of a Parliament. It differs from a prorogation, which is the continuance of a Parliament from one session to another, and from an adjournment, which is its continuance from one day to another. A dissolution is the civil death of a Parliament; and this may be effected in three ways: (1) By the will of the sovereign. (2) By the demise of the crown. (3) A Parliament may be dissolved or expire by length of time. As the constitution now stands the Parliament must expire, or die a natural death, at the end of every seventh year, if not sooner dissolved by the royal prerogative.

**Dissolving Views,** pictures painted on glass slides, which can be made to appear or disappear at pleasure by a peculiar arrangement of the magic-lantern or the stereopticon.

**Distaff,** a cleft stick about 3 feet long, on which wool or carded cotton was wound in the ancient mode of spinning. The distaff was held under the left arm, and the fibers of cotton drawn from it were twisted spirally by the forefinger and thumb of the right hand. The thread, as it was spun, was wound on a reel which was suspended from and revolved with the thread during spinning.

**Distemper,** a disease of the dog, commonly considered as of a catarrhal nature.

**Distillation,** an important process in the arts; consisting essentially in converting a liquid into vapor in a close vessel, by means of heat, and then conveying the vapor into another cool vessel, where it is condensed again into a liquid. When applied to a solid the process is called sublimation.

**Distinguished Service Order,** an order instituted by Queen Victoria on Sept. 6, 1886, for the reward of naval and military service. Foreign officers who have been associated in naval and military operations with British forces are eligible to be honorary members, and the order ranks next to that of the Indian Empire.

**Distoma,** a genus of trematode or suctorial parasitical worms or flukes, inhabiting various parts of different animals. The common liver fluke, inhabits the gall-bladder or ducts of the liver in sheep, and is the cause of the disease known as the rot. They have also been discovered in man (though rarely), the horse, the hog, the rabbit, birds, etc.

**Distress,** in law, is the taking of a personal chattel of a wrong-doer or a debtor, in order to obtain satisfaction for the wrong done, or for debt or service due. Another description of distress is that of attachment, to compel a party to appear before a court when summoned for this purpose. State laws usually exempt from levy household goods to a certain value.

**Distribution,** in political economy, the method in which the products of industry are shared among the people concerned.

**District, Congressional,** in the United States, a divison of a State according to its population, sufficient in size to entitle it to a representative in Congress. The ratio of representation is established by Congress every 10 years, and is based on the total population as reported by t last preceding census. The action of the Federal Government ceases with the fixing of the rate, and each State establishes the boundaries of its own districts by an act of its Legislature. There is, therefore, a decennial change in the number and frequently in the boundaries of the districts. The ratio of representation in 1913–23 was 1 to each 211,877 of population.

**District Court,** a court having cognizance of cases arising within a certain defined district, more specifically as described below. At present the United States is divided into 92 such districts, each State and Territory having at least one; some from two to seven (New York). For each district there are a judge, a district attorney, a marshal, and deputy marshals. They constitute the officers of the district courts. These tribunals have charge of the administration of justice in cases of offense against the Federal Government.

**District of Columbia,** the Federal district of the United States, containing the National capital. Named for Columbus. Fixed as seat of United States Government in 1790 by an act

of Congress. Formed out of Washington Co., Md. (64 square miles), a portion of Virginian territory offered the government being not now included. The United States Government removed to the District in 1800. The government is vested in three commissioners, one of whom must be an army officer, and all of whom are appointed by the President and confirmed by the Senate. Congress makes all laws for the District. Citizens of the District have no vote for National officers. There is but one government for the entire District, with which the city of WASHINGTON is considered coextensive. Pop. (1920) 437,571.

**Ditch,** a trench or fosse on the outside of a fortification or earthwork, serving as an obstacle to the assailant and furnishing earth for the parapet. They were common features of the Civil War.

**Ditch,** in agriculture, a trench usually made along the sides of fields, so that all the drains may be led into it, or along the top of a field to divert surface water.

**Diuretics,** medicines which cause an increase of the function of the kidneys, and consequently augment the quantity of the urine.

**Divan,** a Persian word having several significations. It is used in Turkey for the highest Council of State, the Turkish ministry; and for a large hall for the reception of visitors. Among several Oriental nations this name is given to certain collections of lyric poems by one author. The "divans" of Hafiz and Saadi, the Persian Poets, are among the most important. In Western Europe the term is applied to a cafe, and to a kind of cushioned seat.

**Diver,** one of a family of birds, remarkable for their power and habit of diving. The neck is long, thus presenting a great affinity to the grebes; the tail is very short and rounded; the wings short; the bill straight, strong, and pointed.

**Dives** (rich), the name popularly adopted for the "rich man" in the parable of the rich man and Lazarus, from the Vulgate translation.

**Divide, The Great,** a popular designation for a certain stretch of W. country in the United States.

**Dividend,** in arithmetic, a number which has to be divided by another. In bankruptcy, the fractional part of the assets of a bankrupt which is paid to the creditor in proportion to the amount of the debt which he has proved against the estate of the debtor. In commerce, the sum periodically payable as interest on loans, debentures, etc., or that periodically distributed as profit on the capital of a railway or other company.

**Divination,** the art or act of foretelling future events, or discovering things secret or obscure, by the aid of superior beings, or by other than human means; prescience; presage; prediction.

**Divine Right,** the claim set up by some sovereigns or their supporters to the absolute obedience of subjects as ruling by appointment of God, insomuch that, though they may themselves submit to restrictions on their authority, yet subjects endeavoring to enforce those restrictions by resistance to their sovereign's acts are considered guilty of a sin. This doctrine, so celebrated in English constitutional history, especially in the time of the Stuarts, is upheld by the German emperor, and of course by the Czar, and other autocrats.

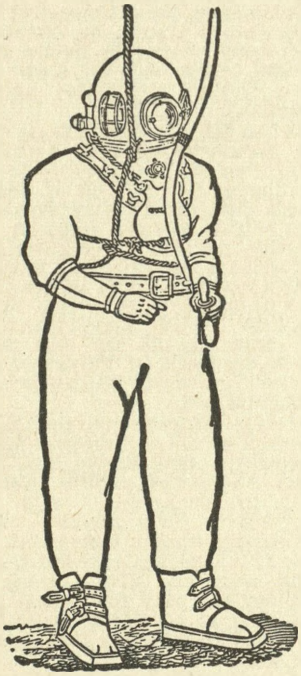
**Diving Apparatus,** contrivances by means of which divers are enabled to remain a considerable time under water. As the most skillful divers are unable to remain under water more than two or three minutes without artificial respiration, means have been devised by hermetically sealed helmets, diving bells, and diving dresses, so that they can stay for several hours at a time at considerable depths of water and at the same time carry on their work.

**Divining Rod,** a forked rod or branch, by means of which it is pretended to the foolish and superstitious that the presence of water, minerals, etc., underground can be detected. When used, the rod, which is carried slowly along in suspension, will, as is affirmed, dip and point toward the ground when brought over the spot where the concealed water or mineral is to be found.

**Division,** in arithmetic, the dividing of a number or quantity into any

parts assigned; one of the four fundamental rules, the object of which is to find how often one number is contained in another.

**Division,** in military matters, a portion of an army consisting of two or more brigades, composed of the various arms of the service, and commanded by a general officer. In the navy a select number of ships in a fleet or squadron of men-of-war.



A DIVING DRESS.

**Division,** the mode of determining a question at the end of a debate in a legislative body.

**Divorce,** the disruption, by the act of law, of the conjugal tie, made by a competent court on due cause shown. In the United States, jurisdiction in divorce cases is usually conferred on the law courts by the statutes in the different States, there being no ecclesiastical courts in the English sense of that term. The causes of divorce enumerated in these statutes are by no means uniform in relation to the various States; South Carolina allows no divorce under any circumstances, but in most of the States divorce may be granted on any of the following grounds: Adultery, conviction of felony, cruel and inhuman treatment, wilful desertion for periods varying from one to three years, habitual drunkenness, impotency, or neglect to support the wife.

The want of harmony in the legislation of the different States on this subject has led to very great confusion and conflict in regard to the rights and liabilities growing out of divorce against non-residents of the State where granted, and some uniform system of laws on the subject is greatly needed. As the jurisdiction of Congress over the subject is very doubtful, uniformity can apparently be secured only by an amendment to the Constitution of the United States, or by the concurrent action of the various State Legislatures.

**Dix, John Adams,** an American statesman and soldier; born in Boscawen, N. H., July 24, 1798. In 1861 he was appointed Secretary of the Treasury by President Buchanan, and his appointment led to the breaking of a financial deadlock in the affairs of the government. When he became secretary there were two revenue cutters at New Orleans, and he ordered them to New York. The captain of one refused to obey his order, and Dix telegraphed to put him under arrest, adding the statement which has made him famous, "If any one attempts to haul down the American flag, shoot him on the spot." At the outbreak of the Civil War, he was elected president of the Union Defense Committee, and organized 17 regiments. He was commissioned a Major-General of volunteers, and through his active measures saved Maryland to the Union cause. He was elected governor of New York in 1872, but was defeated on a renomination in 1874. He died in New York city, April 21, 1879.

**Dixie,** the name of the celebrated air, "Dixie," to which Southern soldiers marched to battle in the Civil War, and which is now recognized,

with "Yankee Doodle," as one of our national airs. The legend, probably a true one, is that Dixie was a slave-owner on Manhattan Island, New York, who treated his slaves well. They were sold to Southern masters, and the melody "Dixie" originated in their plaintive regret for their old home. The words, of course, were added subsequently. A proposition in September, 1903, at a national reunion of Confederate veterans to make the wording of Dixie "more dignified," evoked the fiercest condemnation.

**Dixmude,** a town in West Flanders, Belgium, in the fertile district called Freyeland, 14 miles S. of Ostend and 12 miles N. of Ypres on the Yser river. It is a typical old-fashioned place, which has changed comparatively little in the last century excepting under the ravages of the World War. It is widely noted for its butter, cheese, and beer, and had an active trade in salt, horses, and cattle. Its church of the 16th century contained many famous works of art. The town was besieged by citizens of Bruges in 1580 and by the people of Ghent a few years later, and it was taken by the French in 1647, 1658, 1663, and 1695, and by the Germans, Nov. 11, 1914. See APPENDIX: *World War.*

**Dixon, William Hepworth,** an English author; born in Manchester, June 30, 1821. In 1853, after having been a contributor, he became chief editor of the "Athenæum." He gave to the world about 25 volumes of history, travel, and fiction. He died in London, Dec. 27, 1879.

**Dixon Entrance,** a strait on the W. coast of North America, separating Queen Charlotte Islands from the Prince of Wales Archipelago, and so dividing British territory from a part of Alaska.

**Dnieper,** a river of Europe which rises in the government of Smolensk, flows first S. W., then S. E., and latterly again S. W. to the Black Sea. It begins to be navigable a little above Smolensk, and has a total length, including windings, of 1,230 miles.

**Dniester,** a river of Russia which has its source in the Carpathian Mountains, in Austrian Galicia, enters Russia at Chotin, and empties itself into the Black Sea after a course of about 750 miles. Its navigation is difficult. See APPENDIX: *World War.*

**Doane, George Washington,** Protestant Episcopal Bishop of New Jersey 1832–59; born at Trenton, N. J., in 1799; died in 1859. He was the author of several poems and hymns, including "Softly now the Light of Day." His son,

**Doane, William Croswell,** Protestant Episcopal Bishop of Albany since 1869, was born in Boston in 1832. His episcopal activity was marked by the building of the Cathedral of All Saints. He died May 17, 1913.

**Dobrovsky, Joseph,** a Bohemian critic, historian and philologist; born in Gyermet, Hungary, Aug. 17, 1735. He died in Brunn, Jan. 6, 1829.

**Dobrudja, The,** a territory forming part of the kingdom of Rumania, included between the Danube, which forms its boundary on the W. and N., the Black Sea on the E. and on the S. by Bulgaria, of which prior to 1878 it formed part. Area 5,950 square miles; pop. (1912) 381,306.

**Dobson, Henry Austin,** an English poet; born in Plymouth, Jan. 18, 1840. Intended for a civil engineer, he accepted a place under the Board of Trade. His poems are noted for their artistic finish and grace of fancy.

**Dock,** an enclosure for the accommodation of shipping. Docks may be divided into two principal classes, viz., wet docks and dry docks.

Wet docks are used almost exclusively for purposes of marine commerce. Where the range of tide is more than 10 to 12 feet, docked vessels are kept alongside of the quay or dock at as nearly a uniform elevation as practicable by means of enclosing requisite water areas and preventing by suitable means the outflow of water during ebb tides. Such docks are frequently approached through what is called a tidal basin, or sometimes a half-tide basin, the latter expression indicating the fact that ships may freely enter or leave such basins during the upper half of the tidal range.

Floating dry docks are composed of one or more large pontoons, so constructed and arranged as to carry

along each side pumps and other appliances on suitable stiff frames. When the pontoons are filled with water they sink, and when water is pumped out of them they rise to a height corresponding to the amount of water taken out. The mode of operation of the floating dry dock is as follows: The pontoons are filled with water till they sink to a depth a little greater than the draught of the vessel to be docked. The vessel is then floated over the submerged pontoons and between the frames till it is placed accurately in position over the axis of the floating dock. Water is then pumped out of the pontoons gradually and uniformly so as to keep the ship on an even keel. As the ship rises out of the water she is steadied by shores from the frames over the pontoons. The pumping is continued till the ship is raised wholly above water, if it is desired to expose her complete hull.

**Docket,** in law, an alphabetical list of cases in a court, or a catalogue of the names of the parties who have suits pending in a court.

**Dock Warrants,** orders for goods kept in the warehouses connected with a dock. They are granted by the proper officer at the dock to the importer in favor of any one that he may name.

**Doctor,** properly, a teacher or instructor; one so skilled in some particular art or science as to be able to communicate it to others. It is generally believed to have been first adopted as a distinctive title in the 12th century, and to have originated with the University of Bologna. The University of Paris followed immediately after, and, in 1145, conferred the degree of doctor of divinity on Peter Lombard. In England the degree of doctor was not introduced in the universities till the reign of John, or Henry III. In modern times, the title of doctor forms generally the highest degree in the faculties of theology, law, and medicine. In this country the title is conferred upon those of eminent learning or ability in their profession, without demanding from them any trial; excepting in the medical profession, where it is bestowed at the end of a course of study.

**Doctor's Commons,** in England, the common name for the courts and offices in London, occupied by the body incorporated in 1768 under the title of "The College of Doctors of Law exercent in the Ecclesiastical and Admiralty Courts."

**Doctors of the Church,** a name given to four of the Greek fathers (Athanasius, Basil, Gregory Nazianzen, and Chrysostom) and three of the Latin Fathers (Jerome, Augustine, and Gregory the Great). The Roman Catholic Church, however recognizes 17 "Doctors of the Church," including besides those already mentioned, Chrysologus, Leo, Isidore, Peter Damian, Anselm, Bernard of Clairvaux, Thomas Aquinas, Bonaventura, and Alphonsus of Liguori. The title is conferred only after death.

**Dodder,** the common name of the plants of the genus Cuscuta, a group of slender branched, twining, leafless pink or white annual parasites. The seeds germinate on the ground, but the young plant shows its parasitic habit by speedily attaching itself to some other plant, from which it derives all its nourishment. Twenty species are common in the United States, and are often very destructive to flax, clover and other crops. When a field is infected with dodder, the crop should be cut and burned before maturing, clean seed only being used to replant.

**Doddridge, Philip,** an English Nonconformist clergyman and author; born in London, June 26, 1702; died Oct. 26, 1751, in Lisbon, whither he had gone for the benefit of his health. Doddridge was at once liberal and evangelical, and with all his religious earnestness and enthusiasm had humanity enough for such levities as cards and tobacco. His principal work is "The Rise and Progress of Religion in the Soul." His hymns have carried his name over the English-speaking religious world, perhaps the best known being "Hark, the glad sound, the Saviour comes," and "O God of Bethel, by whose hand."

**Dodds, Alfred Amédée,** a French military officer; born in St. Louis, Senegal, Feb. 6, 1842; was educated at the Lyceum of Carcassonne and at the military school of Saint-Cyr; entered the French army as sub-lieuten-

ant in 1864. In 1894 he commanded the expedition which resulted in the conquest of Dahomey and the dethronement of King Behanzen. He was appointed commander-in-chief of the French forces in Indo-China in 1896.

**Dodge, Grenville Mellen,** an American military officer; born in Danvers, Mass., April 12, 1831; educated at Partridge's Military Academy and Norwich University. He served during the Civil War with honor and succeeded Rosecrans as commander of the Department of Missouri. After the war he was chief engineer of the Union Pacific railroad and superintended its construction, and was a member of Congress from Iowa in 1867–1869. He succeeded General Sherman as president of the Association of the Army of the Tennessee in 1894, and was also president of the New York Commandery of the Loyal Legion. In 1898 he was made chairman of the President's Commission to inquire into the management of the War Department in the war with Spain. He died Jan. 3, 1916.

**Dodge, Mary Abigail,** an American journalist and author; born in Hamilton, Mass., in 1838. For several years she was instructor in the High School at Hartford, Conn. From 1865 to 1867 she was one of the editors of "Our Young Folks." Besides numerous contributions to current literature, she has written, under the pseudonym of "Gail Hamilton" a number of well known books. She died in Hamilton, Mass., Aug. 17, 1896.

**Dodge, Mary Elizabeth Mapes,** an American editor, author, and poet; born in New York city in 1838. Since 1873 she has been the editor of "St. Nicholas" (magazine), New York. Her best-known work is "Hans Brinker, or the Silver Skates" (1876), which went through many editions and foreign translations. She died Aug. 21, 1905.

**Dodge, Richard Irving,** an American military officer and writer; born in Huntsville, N. C., May 19, 1827. He graduated at the United States Military Academy in 1848. He died in Sackett's Harbor, N. Y., June 16, 1895.

**Dodge, Theodore Ayrault,** an American military officer and writer; born in Pittsfield, Mass., May 28, 1842; received his military education abroad. Returning to the United States, he enlisted (1861) in the Union service as a private, and became colonel. He wrote a number of historical works. He died in 1909.

**Dodge, William Earle,** an American capitalist; born in Hartford, Conn., Sept. 4, 1805. He received a common school education, entered the wholesale drygoods business, retiring in 1879 with a large fortune. He was an ardent friend of the freedman. He died in New York city Feb. 9, 1883.

**Dodge, William Earle,** an American capitalist, born in New York city Feb. 15, 1832. He succeeded to his father's interests, and became active in mining and manufacturing. His public benefactions and labors have been numerous, he being president of the Evangelical Alliance, chairman of the National Committee of Arbitration, etc. He died Aug. 9, 1903.

**Dodgson, Charles Lutwidge,** an English mathematician and author, and better known by his pen-name of Lewis Carrol; born in 1833; received his academical education at Christ Church, Oxford. He became famous as the author of "Alice's Adventures in Wonderland," written for the young. Equally delightful is the continuation of "Alice's Adventures," narrated in "Through the Looking-glass and What Alice Found There." He was also the author of several important works on mathematics. He died in Guilford, Jan. 14, 1898.

**Dodo,** a large bird that inhabited Mauritius in great numbers when that island was colonized in 1644 by the Dutch, but which was totally exterminated within 50 years from that date, the last record of its occurrence being in the year 1681. The dodo was a heavy, clumsy bird, incapable of flight.

**Doe, John,** a fictitious name used in legal actions, when the identity of the person concerned is concealed.

**Dog,** a digitigrade, carnivorous animal, forming the type of the genus Canis, which includes also the wolf, jackal, and fox. It would require a volume to give a proper account of the natural history of this noble animal, which seems to have been formed

expressly to be a companion to man. Dogs are found in all parts of the world, with the exception of some islands in the Pacific Ocean, but attain greatest perfection in temperate climates. These animals form an important article of food among many nations. In China, the Society Islands, etc., young puppies are considered a great delicacy, and are said by Occidentals who have overcome their prejudices to be very sweet and palatable. This taste for dog's flesh is of very early origin. The ancients regarded a young and fat dog as excellent food.

**Dogbane,** an American plant found from Canada to the Carolinas. The whole plant is milky; the root is intensely bitter and nauseous. Another species yields a useful fiber, and is known as Canada or Indian hemp.

**Dog Days,** the name applied by the ancients to a period of about 40 days, the hottest season of the year, at the time of the heliacal rising of Sirius, the dog-star. The time of the rising is now, owing to the precession of the equinoxes, different from what it was to the ancients, and the dog days are now counted from July 3 to Aug. 11.

**Dog of Montargis.** See AUBRY DE MONTDIDIER.

**Doge,** the title borne by the chief magistrate in the former Italian republics of Venice and Genoa.

**Dogfish,** a species of fish like small sharks, but having the anal fin nearer the head than the second dorsal one. Of the known species, which are about 11, the small-spotted dogfish, the large-spotted dogfish, and the black-mouthed dogfish are the best known.

**Dogma,** in the Septuagint and New Testament, signifies a decree or precept; by classical Greek writers it is used in the sense of a philosophical tenet. Its general meaning is a principle or maxim laid down in the form of a positive assertion, and hence "the Dogmatic Method" is the method pursued in such a science as mathematics, which starts from axioms and postulates, and deduces everything from these by means of proofs. The word dogma is especially used to signify the whole (or any one) of the doctrinal forms in which the religious experience of the Christian Church has from time to time authoritatively expressed itself, as distinguished from the opinions held by Church-teachers individually.

**Dog Star.** A name for Sirius, the star which gives its name to the dog days.

**Dogwatch,** on shipboard, a name given to each of two watches of two hours each instead of four, adopted for the purpose of varying the hours of watches kept by each part of the crew during the 24 hours, otherwise the same watch would invariably fall to the same men.

**Dogwood,** a common name for plants of the genus Cornus. Cornus florida is a common American tree growing 6 to 30 feet in height, and bearing beautiful white clusters of flowers, enlivening the hedges and bush of the warmer portion of the United States. It is productive of a bark much valued as an anti-periodic in ague, etc., and its wood, which is hard, white, and close grained, is useful in various ways.

**Dohrn, Anton,** a German zoologist; born in Stettin, Dec. 29, 1849; lectured for a time on zoölogy at Jena, and in 1870 founded the great zoölogical station at Naples. He died Sept. 30, 1909.

**Dolbear, Amos Emerson,** an American physicist and inventor; born in Norwich, Conn., Nov. 10, 1837; patented the magneto-electric telephone and the static telephone in 1879. He died Feb. 23, 1910.

**Dolci, Carlo** or **Carlino,** a painter of the Florentine school; born in Florence in 1616; died Jan. 17, 1686.

**Dolcinites,** (from Dolcino, their founder), a Christian sect which arose in Piedmont in 1304, under the leadership of Dolcino, who was opposed to the papacy, and otherwise held tenets like those of the spiritual Franciscans and the Paterines of Lombardy.

**Doldrums,** among seamen, the parts of the ocean near the equator that abound in calms, squalls, and light baffling winds.

**Dole, Nathan Haskell,** an American editor, author and translator; born in Chelsea, Mass., Aug. 31, 1852. He was graduated from Harvard University in 1874, and after several years

of teaching, engaged in literary work in Boston and New York. He has lectured widely before women's clubs and other institutions, having prepared courses of papers on English, Russian, Italian, and French literatures. In 1882 he married Helen James Bennett.

**Dole, Sanford Ballard,** an American statesman; born in Honolulu, Hawaii, April 23, 1844, his parents being missionaries. He received his early education in Poduban College, Honolulu, and completed his studies at Williams College, Williamstown, Mass. He studied law in Boston and was admitted to the bar in 1873, returning in the same year to Hawaii. In 1844 he was made a member of the Legislature and again in 1889. He had been in the meantime, in 1887, appointed an Associate Judge of the Supreme Court, under the monarchy, which post he resigned to accept the leadership of the revolution that overturned the monarchy in January, 1893, and established a provisional government on the 17th of that month. The proposition for annexation of the islands being rejected by President Cleveland, a constitutional convention was held in Honolulu, and on July 4, 1893, a republic was formally proclaimed, of which Judge Dole was elected president. After the annexation of Hawaii in 1898, he was one of the five commissioners appointed by President McKinley to recommend to Congress legislation concerning Hawaii; in 1900–1903 was governor of the Territory; and then became United States District Judge there.

**Dolet, Etienne,** "the martyr of the Renaissance"; born in Orleans, France, in 1509. At the age of 12 Dolet went to the University of Paris, where his attention was directed to the study which became the chief interest of his life — the writings of Cicero. He was found guilty of heresy on a charge mainly based on an alleged mistranslation of Plato, in which he was accused of denying the immortality of the soul. After two years' imprisonment, Dolet was burned in the Palace Maubert, Paris, Aug. 3, 1546.

**Dolgoruky, Katharina, Princess,** the favorite of Czar Alexander II., who married her in July, 1880, after the death of his first wife, Marie. Their children held high positions, but were not publicly recognized as of the imperial house.

**Dolichocephalic,** long-headed; an epithet applied to those human skulls in which the transverse diameter or width from side to side bears a less proportion to the longitudinal diameter, or width from front to back than 8 to 10.

**Doll,** a favorite plaything of children, found in the greatest variety of form and decoration. Of late years "doll shows," or bazaars, have been very popular in the United States, where hundreds of dolls are put on exhibition and sold, generally in aid of some charity. The phonograph doll, invented by Edison, created great interest when it was first introduced.

**Dollar,** a favorite coin found under different names in almost every part of the globe. The following are the principal dollars in circulation: (1) A gold coin of the United States; weight, 25.8 grains; fineness, .900; now no longer coined. (2) A silver coin of the United States. (3) A silver coin current in Mexico; fineness, .900; weight, 27.067 grammes, or 417.7 grains. (4) The unit of value in Canada, represented by paper only, Canada having no coinage of its own. (5) The English name of a silver coin in circulation in many other countries, as Norway, Sweden, Denmark, etc. The sign $, now generally used to signify a dollar, is commonly supposed to date from the time of the celebrated Pillar dollar of Spain. This dollar was known as the Piece of Eight (meaning eight reals), and the curved portion of the sign is a rude representation of the figure 8. The two vertical strokes are thought to be emblematical of the Pillars of Hercules, which were stamped upon the coin itself.

**Dollinger, John Joseph Ignatius,** a German Catholic priest and historian; born in Bamberg, Bavaria, Feb. 28, 1799. He won distinction as a learned writer on Church history. He was a vigorous advocate for the separation of the Church from the State. He refused assent to papal infallibility, and was excommunicated, but received honorary degrees and other tokens of esteem from foreign insti-

tutions. He died in Munich, Jan. 10, 1890.

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upon the value, tenure, and service of lands therein described.

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upon him by the ferocity in which he ultimately revelled. After escaping from many conspiracies, the monster fell, on Sept. 18, A. D. 96, the victim of a plot in which his wife, Domitia, bore a prominent part.

**Domremy la Pucelle,** a primitive village of N. France, on the Meuse river, 7 miles N. of Neufchateau and 30 miles S. W. of Nancy. It owes its fame to the fact that it was the birthplace of Joan of Arc. The cottage in which the heroine was born still stands, resembling a big shed, with its roof slanting one way from a very high wall at the front to a low one at the back. Three-quarters of a mile to the S. is a basilica, marking the spot where Joan testified she first received the command to deliver France.

**Don,** (ancient Tanais), a river of Russia, which issues from Lake Ivan-Ozero, in the government of Tula; and flows S. E. through governments Riazan, Tambov, Voronej, and Don Cossacks, to within 37 miles of the Volga, where it turns abruptly S. W. for 236 miles, and falls into the Sea of Azof; whole course nearly 900 miles.

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**Dordogne,** a Department of France which includes the greater part of the ancient province of Périgord, and small portions of Limousin, Angoumois, and Saintonge. Area, 3,550 square miles; devoted to viticulture and agriculture. Pop. (1921) Est. 500,000.

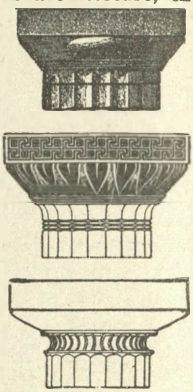
**Doré, Paul Gustave,** a French draughtsman and painter; born in Strassburg, Jan. 6, 1833. He studied at Paris, contributing, when only 16 years of age, comic sketches to the "Journal pour Rire." He distinguished himself greatly as an illustrator of books. His illustrations of the Bible, and Milton's "Paradise Lost," are of high excellence. In later years Doré also won fame as a sculptor. He died June 23, 1883.

**Doremus, Robert Ogden,** an American chemist; born in New York city, Jan. 11, 1824. He graduated at New York University in 1842, and from its medical department in 1850, having established his chemical laboratory in New York in 1848. He patented noted chemical processes and fire extinguishers and was a noted toxicologist. He died Mar. 22, 1906.

**Doria,** one of the most powerful families of Genoa, became distinguished about the beginning of the 12th century, and shared with three other leading families, the Fieschi, Grimaldi, and Spinola, the early government of the republic. The most famous was Andrea Doria, born in 1466, imperial admiral under Charles the Fifth. He died in 1560.

**Dorians,** one of the great Hellenic races who took their name from the mythical Dorus, the son of Hellen, who settled in Doris; but Herodotus says that in the time of King Deucalion they inhabited the district Phthiotis; and in the time of Dorus, the son of Hellen, the country called Histiæotis, at the foot of Ossa and Olympus. But the statement of Apollodorus is more probable, according to which they would appear to have occupied the whole country along the N. shore of the Corinthian Gulf. Indeed, Doris proper was far too small and insignificant a district to furnish a sufficient number of men for a victorious invasion of the Peloponnesus. In this remarkable achievement they were conjoined with the Heracleidæ. Doric columns were founded in Italy, Sicily, and Asia Minor.

**Doric Order,** in architecture, the second of the five orders, being that between the Tuscan and Ionic.



GRECIAN DORIC CAPITALS.
1, plain; 2, pointed; 3, at temple of Ceres in Paestum.

**Doris,** the name of a country in Greece, S. of Thessaly, from which it was separated by Mount Œta. Also a colony of the Dorians in Asia Minor, on the coast of Caria.

**Dormant,** in heraldry, in a sleeping posture.

**Dormer Window,** a window piercing a sloping roof, and having a vertical frame and gable of its own.

**Dormouse,** a small European mammal. The name dormouse refers to the torpid state in which it passes the severe part of the winter, hence it has even been called the Sleeper.

**Dorner, Isaak August,** a German Protestant theologian; born near Tuttlingen, Wurtemberg, June 20, 1809; died in Berlin, July 8, 1884.

**Dorpat,** or **Dorpt,** a town of Russia, in Livonia. The university, founded in 1632, by Gustavus Adolphus, was reëstablished by Alexander I. in 1802, and since 1889 has been thoroughly Russianized. The name of the town has been changed to Yuriev, pop. (Est.) 45,000.

**Dorr, Mrs. Julia Caroline (Ripley),** an American poet; born in Charleston, S. C., Feb. 13, 1825.

**Dorr, Thomas Wilson,** born in Providence, R. I., Nov. 5, 1805. He was a member of the Assembly of Rhode Island in 1833–1837, and was the leader of Dorr's Rebellion. This was brought about by dissatisfaction with the voting system of the State; and a call for a constitutional convention was made by a party called the Suffrage Party, of which Dorr was

the head. A constitution was made by this convention and submitted to the people in 1841, receiving a majority of the votes. A government with Dorr as president was elected. Dorr was convicted of high treason and sentenced to imprisonment for life, but was released under a general amnesty act in 1847, and was restored to his civil rights in 1851, the Rhode Island legislature ordering that his sentence should be expunged from the records of the Supreme Court. He died in Providence, Dec. 27, 1854.



DORMOUSE.

**D'Orsay, Alfred Comte,** a French leader of fashion; born in Paris, Sept. 4, 1801; died in Paris, Aug. 4, 1852.

**Dorsey, James Owen,** an American ethnologist; born in Baltimore, Md., Oct. 31, 1848. He was ordained a deacon in the Protestant Episcopal Church. He was appointed ethnologist to the United States Geological and Geographical Survey of the Rocky Mountains. He died in Washington, D. C., Feb. 4, 1895.

**Dorsey, Sarah Anne,** an American prose-writer; born in Natchez, Miss., Feb. 16, 1829. She was amanuensis to Jefferson Davis in the preparation of his "Rise and Fall of the Confederate Government." She died in New Orleans, La., July 4, 1879.

**Dort,** or **Dordrecht,** a town of the Netherlands, in the Province of South Holland; on an island formed by the Maas, 10 miles S. E. of Rotterdam. An inundation in 1421, in which upward of 70 villages were destroyed and 100,000 people drowned, separated the site on which Dort stands from the mainland. It is one of the oldest, as in the Middle Ages it was the richest of the trading towns of Holland. Here, in 1572, the States of Holland, after the revolt from Spain, held their first assembly; and the conclave of Protestant divines known as the Synod of Dort, which condemned the doctrines of Arminius as heretical, and affirmed those of Calvin, also met here. Pop. (1914) 49,952.

**Dortmund,** a city of Prussia, Province of Westphalia; on the Ems, 47 miles N. N. E. of Cologne. It is the center of several important railway systems, has extensive coal mines in the vicinity and numerous industrial plants, and was once a free imperial Hanseatic town, and seat of the Vehme tribunal. Pop. (1910) 214,226.

**Dositheans,** a sect founded by Dositheus, whose life and labors were in Samaria. The popular belief is that he was the first Christian "heretic."

**Dost, Mohammed Khan,** a successful usurper who obtained possession of the throne of Afghanistan after the flight of Mahmud Shah in 1818; born about 1790. He ruled with great ability, and although driven from his throne by a British army, was ultimately restored, and later became a steady supporter of British power in the East. He died in 1863.

**Dostoieffsky, Feodor Mikhailovitch,** a Russian novelist; born in Moscow, Nov. 11, 1821; passed through the Imperial School of Engineers, and after a short trial of the army, adopted literature as a profession. He became involved in the Communist plots of Petrocheffsky, and was condemned to 12 years' labor in the mines, and deported to Siberia. In 1856 he was permitted to return to St. Petersburg,

where in 1860 he published an account of his prison life. He died in St. Petersburg, Feb. 8, 1881.

**Douai,** a town of France, capital of an arrondissement in the Department of Le Nord, on the Scarfe river, 18 miles S. of Lille, 108 miles N. by E. of Paris. It has several handsome old churches, a National School of Agriculture, a great cannon factory, a botanical garden, museum, well-stocked municipal library, and numerous industrial plants. It was an important town of old Flanders, and in 1917 was in the area of great war operations. Pop. (1911) 36,314. See APPENDIX: *World War.*

**Douai,** or **Douay Bible,** the English version of the Bible translated by the students of the Catholic college at Douay, under the auspices of Cardinal Allen, the founder of that seat of education. The work was published at Douay in 1609, about two years before the appearance of King James's authorized Protestant Bible, and is the only English one which has obtained the sanction of the Pope.

**Doubleday, Abner,** an American military officer; born in Ballston Spa, N. Y., June 26, 1819; graduated at the United States Military Academy. He was second in command at Fort Sumter in 1861, firing the first gun in its defense, and he greatly distinguished himself at Gettysburg. He died in Menham, N. J., Jan. 26, 1893.

**Double Standard,** in economics the phrase double standard is used to signify a double standard of monetary value. It implies the existence of what is known as the gold standard on the one hand, and the silver standard on the other.

**Doublet,** a close-fitting garment, covering the body from the neck to a little below the waist.

**Doubs,** a Department of France, having Switzerland on its E. frontier. Its surface is traversed by four chains of the Jura. Pop. (1911) 299,935.

**Doucet, Charles Camille,** a French dramatist; born in Paris, May 16, 1812. He became in 1853 a government official in the theatrical department; was elected to the Academy in 1876; and soon after made its secretary. He died in Paris, April 1, 1895.

**Douglas,** a family distinguished in the annals of Scotland. Their origin is unknown. They were already territorial magnates at the time when Bruce and Baliol were competitors for the crown. As their estates lay on the borders they early became guardians of the kingdom against the encroachments of the English, and acquired power that made them formidable to the crown.

**Douglas, Amanda Minnie,** an American story-writer; born in New York city, July 14, 1838; was carefully educated in English literature; wrote many stories of a popular historical character. She died July 18, 1916.

**Douglas, Andrew Ellicott,** an American archæologist; born in West Point, N. Y., Nov. 18, 1819. He was graduated at Kenyon College in 1839. He made profound studies of Indian archæology in the United States, especially in Florida. He died in 1901.

**Douglas, Sir Howard,** an English naval strategist; born in Gosport in 1776; served in Canada (1795) and in two Peninsular campaigns, being present at Corunna. He was successively governor of New Brunswick, Lord High Commissioner of the Ionian Islands, and M. P. for Liverpool. He died Nov. 9, 1861.

**Douglas, Stephen Arnold,** an American statesman; born in Brandon, Vt., April 23, 1813. In 1834 he began the practice of law at Jacksonville, Ill.; was elected attorney-general of the State in the same year, member of the Legislature in 1835, Secretary of State in 1840, and Judge of the Supreme Court in 1841. He was elected to Congress in 1843, 1844, and 1846, and to the United States Senate in 1847, 1852, and 1858. In the Lower House he advocated the annexation of Texas, and of Oregon up to 54° 40′ N. lat., and favored the war with Mexico, and in the Senate he opposed the ratification of the Clayton-Bulwer Treaty, and declared himself in favor of the acquisition of Cuba, his desire being to "make the United States an ocean-bound republic." On the question of slavery he maintained that the people of each territory should decide whether it should be a free State or a slave State; this was known as the doctrine of "popular" or "squatter sovereignty." In 1860 he received the reg-

ular Democratic nomination for the presidency, the seceding delegates nominating John C. Breckinridge. Douglas obtained 12 electoral and 1,375,157 popular votes, as against 180 electoral and 1,866,352 popular votes cast for Lincoln, to whom, in the early days of the Civil War, he gave an unfaltering support. He died June 3, 1861, in Chicago.

**Douglass, Frederick,** an American lecturer and journalist; the son of a negro slave; born in Tuckahoe, Md., in February, 1817. In 1832 he was purchased by a Baltimore ship-builder, but made his escape in 1838. As he had taught himself to read and write, and showed talent as an orator, he was employed by the Anti-slavery Society as one of their lecturers. In 1845 he published his autobiography and afterwards made a successful lecturing tour in England. In 1871 he was appointed secretary of the commission to Santo Domingo; in 1872, presidential elector; and in 1877 marshal for the District of Columbia. He was commissioner of deeds for that district, 1881–1886; and United States Minister to Haiti in 1890. He died in Washington, D. C., Feb. 20, 1895.

**Douro,** one of the largest rivers of Spain and Portugal. The total length of the river is about 490 miles; it is navigable to Torro de Moncorvo, 90 miles.

**Dove,** a river flowing along the borders of Derbyshire and Staffordshire, England, the favorite fishing stream of Izaak Walton, who lived here with his friend, Charles Cotton; it is still beloved of anglers.

**Dove, Heinrich William,** a German physicist and meteorologist; born in Liegnitz, Silesia, in 1803; studied at Breslau and Berlin, and in 1845 became Professor of Natural Philosophy at Berlin. He labored successfully in many fields of science, especially optics and electricity; but his greatest services were rendered to meteorology, which he did much to establish on a scientific basis. He was from 1848 director of the Royal Meteorological Institute, with over 80 stations. He died in Berlin, April 4, 1879.

**Dover,** a Cinque port and parliamentary and municipal borough in the E. of Kent, England, 66 miles E. S. E. of London. It is the headquarters of the Southeastern District of the British army. The fortifications comprise Dover Castle, 375 feet above sea-level. Three cables connect it with France. The entrance to the now abandoned channel tunnel was to have been here. In 1906 rich coal fields were discovered in the vicinity, and in 1910 a $20,000,000 harbor and naval base were completed here. Pop. (1921) 45,200.

**Dover,** a city, capital of the State of Delaware, and county-seat of Kent co.; on Jones creek, and the Philadelphia, Wilmington, and Baltimore railroad, 75 miles S. of Philadelphia. Pop. (1920) 4,042.

**Dover,** a city and county-seat of Strafford co., N. H.; the oldest city in the State; was settled in 1623; nearly destroyed by the Indians in 1689; and was chartered as a city in 1855. Pop. (1890) 12,791; (1900) 13,207; (1910) 13,247; (1920) 13,029.

**Dover, Strait of,** the narrow channel between Dover and Calais which separates Great Britain from the French coast. It is 21 miles wide.

**Dow,** or **Douw** (properly Dou), **Gerard,** a Dutch painter, the son of a glazier; born in Leyden, April 7, 1613. Died in Leyden, 1675.

**Dow, Neal,** an American temperance reformer; born in Portland, Me., March 20, 1804. He was the author of the bill which prohibited the manufacture and sale of intoxicating liquors in the State of Maine, widely known as the "Maine Law." During the Civil War he was colonel of a Maine regiment and a Brigadier-General of volunteers. He died Oct. 2, 1897.

**Dowd, Charles Ferdinand,** an American educator; born in Madison, Conn., April 25, 1825. He was graduated at Yale in 1853. He originated the longitude standards for railroad time, and advocated the 24-hour time notation. He died Nov. 14, 1904.

**Dowden, Edward,** an Irish critic and historian; born in Cork, May 3, 1843. He was Professor of English Literature in Trinity College Dublin, and visited the United States in 1896 and delivered a notable series of lectures. He died April 4, 1913.

**Dower,** the estate for life which a widow acquires in a certain portion of her husband's real property after

his death. Dower, by the common law, which in this matter is the general law in the United States, entitles the widow to a third part of all the lands and tenements of which the husband was seized in fee-simple, or fee-tail, at any time during the coverture; but the rule varies widely on many particulars in the different States.

**Dowie, John Alexander,** born in Scotland. At one time a pastor in Australia, he afterward went to Chicago, Ill. He founded a lace-making industry near Waukegan, Ill.; the place was called "Zion" and his followers "Zionites." He announced that he was the prophet Elijah returned to earth, and Zion, Ill., became a flourishing town. In 1903, his crusade at a great expense in New York city proved a failure. In 1906 he was in Mexico planning new settlements, when after great press notoriety he was deposed on polygamous charges and succeeded at Zion City by W. G. Voliva. He died March 9, 1907.

**Dowlas,** a kind of coarse linen, very commonly worn by the lower classes in the 16th century; also a strong calico made in imitation of the linen fabric.

**Downing Street,** a short street in Whitehall (named after Sir George Downing, Secretary to the Treasury in 1667), London, England, where are the Colonial and Foreign Offices, with the official residence since 1735 of the First Lord of the Treasury. Here cabinet councils are held, hence the term is sometimes employed for the government in office.

**Downs,** a term given to undulating grassy hills or uplands, specially applied to two ranges of undulating chalk hills in England, extending through Surrey, Kent, and Hampshire, known as the North and South Downs. The word is sometimes used as equivalent to dunes or sand-hills.

**Downs, The,** an important roadstead or shelter for shipping, off the S. E. coast of Kent, England. This large natural harbor of refuge is 8 miles by 6, with an anchorage of 4 to 12 fathoms. It is resorted to temporarily by outward and homeward bound vessels and squadrons of ships of war.

**Doxology,** a form of praise, or giving glory to God; as in the concluding paragraph of the Lord's Prayer, "Thine is the kingdom, and the power, and the glory, for ever." The most familiar metrical doxology is that by Bishop Ken, beginning, "Praise God from whom all blessings flow."

**Doyle, Sir Arthur Conan,** a British novelist; born in Edinburgh, Scotland, May 22, 1859. He was educated at the Roman Catholic college or school at Stonyhurst, Lancashire, and at the University of Edinburgh, where he graduated as Doctor of Medicine. After practising for some years, chiefly at Southsea, the success of several of his books induced him to give up the profession for that of literature. He was knighted in June, 1902.

**Dozy, Reinhart,** a Dutch Orientalist and historian; born in Leyden, Feb. 21, 1820. He died April 29, 1883.

**Drachenfels** (Dragon's Rock), a peak of the range called the Siebengebirge, on the right bank of the Rhine, 8 miles S. E. of Bonn, Prussia. It has an elevation of 1,056 feet. Its top, which commands a glorious prospect, may be gained by a mountain railway (1883).

**Drachma, Drachm,** or **Dram,** a silver coin, the unit of the money system in ancient Greece. The Attic drachma is estimated as equivalent to a French franc, or 19.3c in United States gold. The drachma (originally "a handful") was also the name of a weight, and 100 drachmas made a mina (nearly one pound) in weight, as in money.

**Drachmann, Holger,** a Danish poet, painter, and novelist; born in Copenhagen, Oct. 9, 1846. He was essentially an improvisatore; and his works show a lively fancy and excel in descriptions of the life of the common people, especially fishermen and mariners. He visited the United States in 1898. Died Jan. 13, 1908.

**Draco,** an Athenian legislator, the extraordinary and indiscriminate severity of whose laws has rendered his name odious to humanity. During the period of his archonship, about B. C. 623, he enacted a criminal code in which slight offenses were punished as severely as murder or sacrilege. Hence it was said to be "written in blood."

**Draft,** a written order for the payment of a sum of money addressed to

some person who holds money in trust.

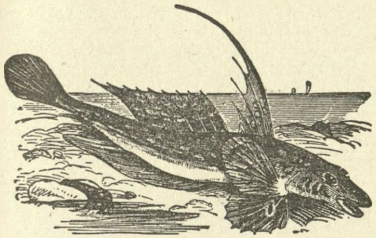
**Drago Doctrine,** named in 1906 after Dr. L. Drago, Argentine Minister of Foreign Affairs, but originated by Signor Calvo, Argentine Minister to France. It holds that the debts of one nation should not be forcibly collected by another nation, but that the courts of the country should be depended upon for the protection of foreign business interests.

**Dragoman,** in Eastern countries an interpreter or guide to foreigners.

**Dragon,** a fabulous animal, found in the mythology of nearly all nations, generally as an enormous serpent of abnormal form.

**Dragon,** the lizard, genus Draco. It has the first six ribs extended in a nearly straight line, and supporting an expansion of the skin on each side which acts like a pair of parachutes. This enables these animals to take long leaps, if need be, about 30 paces from branch to branch, but there is no beating of the air, and consequently no flying, in the ordinary sense of the word. There are various species in the United States, Africa, Java, etc.

**Dragonet,** a genus of fishes remarkable for having the gill openings reduced to a small hole on each side



CEMMEOUS DRAGONET.

of the nape, and the ventral fins placed under the throat, separate, and larger than the pectorals. The species are numerous, widely distributed in the temperate seas of the Old World, and generally finely colored.

**Dragon Fly.** These insects have a large, broad head, very freely attached to the thorax, and large, convex, prominent eyes, which often meet upon the crown of the head. Some 1,400 species have been described from all parts of the world.




DRAGON FLY.

**Dragonnades,** or **Dragonades,** the name given to the persecutions directed against the Protestants chiefly in the S. of France during the reign of Louis XIV. Bands of soldiers, headed by priests, marched through the villages giving the Protestant inhabitants the alternative of renouncing their faith or being given over to the extortions and violence of the soldiery. The dragoons were conspicuous in these expeditions, to which they gave their name. The dragonnades drove thousands of French Protestants out of France.

**Dragon's Blood,** in botany a wing-leaved, slender-stemmed palm, similar in habit to that which furnishes the chair canes. The fruits, which grow in bunches, are about the size of a cherry, and are covered with imbricating scales of a red color, coated with a resinous substance, which is collected by placing the fruits in a bag and shaking them; the friction loosens the resin, which is then formed into sticks or cakes, and constitutes the best dragon's blood of commerce. It is also procured by incision from a tree in the West Indies. Dragon's blood is used for coloring varnishes, for preparing

gold lacquers, for tooth tinctures, and for giving a fine red color to marble.

**Dragoon,** a kind of mounted soldier, so called originally from his musket (dragon) having on the muzzle of it the head of a dragon. At one time dragoons served both as mounted and foot soldiers, but now only as the former. In the British army there are heavy and light dragoons. The first dragoon regiment, the Scots Greys, was formed in 1681.

**Drainage,** a process by which wet and unhealthy soils are rendered arable and healthy. The moisture supply may be artificially regulated on a large scale; at the present time modifications of soil moisture by drainage or irrigation have a far more important place in farm economics than any measures for controlling heat or light. Soils saturated with water do not respond to the operations of tillage or manuring.

Various forms of drains have been employed, but plain cylindrical tiles are now generally used, and are not only the strongest, most accurately adjusted and most effective, but the cheapest.

**Drainage Tubes,** in surgery, are a recent but important addition to the surgical appliances for which this profession is indebted to a distinguished French surgeon, M. Chassaignac. They are composed of india-rubber, from one-eighth to three-eighths inch in diameter, perforated with numerous holes, and of various lengths. They are especially useful in chronic abscesses, but also in large wounds, such as those made by amputation, and in all cases where there is apt to be a deep accumulation of discharge.

**Drake, Alexander Wilson,** an American artist; born near Westfield, N. J., in 1843. He became a wood engraver and later taught drawing at Cooper Union. In 1870–81 he was head of the art department of "Scribner's Monthly" and was then art director of the "Century" publications. He died Feb. 4, 1916.

**Drake, Benjamin,** an American biographical writer; born in Mason co., Ky., in 1794. He established and for many years edited the "Western Agriculturist," and was the author of a number of historical works. He died in Cincinnati, O., April 1, 1841.

**Drake, Sir Francis,** an English navigator, born in Tavistock, in Devonshire, England, in 1539, or according to some authorities in 1545. Having gathered a number of adventurers round him he contrived to fit out a vessel in which he made two successful cruises to the West Indies in 1570 and 1571. Next year, with two small ships, he again sailed for the Spanish Main, captured the cities of Nombre de Dios and Vera Cruz, and took a rich booty which he brought safely home. In 1577 Drake make another expedition to the Spanish Main, having this time command of five ships. On this the most famous of his voyages, Drake passed the Straits of Magellan, plundered all along the coasts of Chile and Peru, sacked several ports, and captured a galleon laden with silver, gold, jewels, etc., to the value of perhaps $1,000,000.

He then ran N. as far as lat. 48° N., seeking a passage to the Atlantic, but was compelled to return to Port San Francisco on account of the cold. He then steered for the Moluccas, and holding straight across the Indian Ocean doubled the Cape of Good Hope, and arrived at Plymouth Nov. 3, 1580, being thus the first of the English circumnavigators. As there was no war between England and Spain the proceedings of Drake had a somewhat dubious character, but the queen maintained that they were lawful reprisals for the action of the Spaniards, and showed her favor to Drake by knighting him on board his own ship. Five years afterward Drake was again attacking the Spaniards in the Cape Verde Islands and in the West Indies, and in 1588 particularly distinguished himself as vice-admiral in the conflict with the Spanish Armada. In 1593 he represented Plymouth in Parliament. His later expeditions, that in 1595 against the Spanish West Indies, and that to Panama, were not so successful, and his death, on Jan. 28, 1596, at sea off Porto Bello, was hastened by disappointment.

**Drake, Francis Samuel,** an American historical writer; born in Northwood, N. H., Feb. 22, 1828; died in Washington, D. C., Feb. 22, 1885.

**Drake, Friedrich,** a German sculptor; born in Pyrmont, June 23, 1805. Drake, long Professor of Sculp-

ture in the Academy at Berlin, died April 6, 1882.

**Drake, Joseph Rodman,** an American poet; born in New York, Aug. 7, 1795. The poems for which he is gratefully remembered are "The Culprit Fay" (1819), and "The American Flag" (1819). He died Sept. 21, 1820.

**Drake, Samuel Adams,** an American journalist and writer; born in Boston, Dec. 20, 1833. He entered journalism in 1858 as correspondent of the Louisville "Journal" and St. Louis "Republican." In 1861 he joined the army and served throughout the war, becoming Brigadier-General in 1863. He resumed literary work in Boston and died Dec. 4, 1905.

**Drake, Samuel Gardner,** an American antiquarian; born in Pittsfield, N. H., Oct. 11, 1798; died in Boston, Mass., June 14, 1875.

**Drakensberg** (Dragon Mountains), the general name given by the Dutch colonists to the range of mountains in the E. of South Africa, between Cape Colony and the Vaal river.

**Drake University,** a co-educational institution in Des Moines, Ia.; founded in 1891, under the auspices of the Christian Church.

**Drama,** a class of writings which almost entirely consist of dialogue, persons being represented as acting and speaking, and the pieces being usually intended to be acted on a stage by parties assuming the characters of the respective persons. Its two great branches are tragedy and comedy.

**Draper, Andrew Sloan,** an American educator; born in Westford, N. Y., June 21, 1848; President of University of Illinois in 1894–1904; then became the first New York State Com. of Education. Died April 27, 1913.

**Draper, Daniel,** an American meteorologist; born in New York, April 2, 1841. After 1869 he was director of the New York Meterological Observatory, the self-recording instruments in use there being of his design.

**Draper, Henry,** an American scientist, son of Prof. J. W. Draper; born in Prince Edward co., Va., March 7, 1837. He was well known for his work in the line of celestial photography. He died Nov. 20, 1882.

**Draper, John William,** an American physiologist, chemist, and writer; born near Liverpool, England, May 5, 1811. He came to the United States in 1833; became Professor of Chemistry in the University of New York in 1841, and in 1850 Professor of Physiology. He died in Hastings-on-the-Hudson, N. Y., Jan. 4, 1882. He wrote a number of historical works.

**Drave,** or **Drau,** a European river which rises in Tyrol, flows E. S. E., and after a course of nearly 400 miles joins the Danube 14 miles E. of Essek. It is navigable for about 200 miles.

**Dravidian,** a term applied to the vernacular tongues of the great majority of the inhabitants of Southern India, and to the people themselves who must have inhabited India previous to the advent of the Aryans.

**Drawing,** the art of representing on a flat surface the forms of objects, and their positions and relations to each other, was prehistoric in origin.

Drawings may be divided into five classes: sketches, finished drawings, studies, academic drawings, and cartoons. First sketches are the ideas put on paper by an artist, with the intention of carrying them out with more completeness and detail in some more elaborate work. They are merely intended to fix and retain his first thoughts. Finished drawings are such as are carefully executed and made complete in all their parts. By studies are generally understood separate parts of objects carefully drawn either from life or from figures in relief; for example, heads, hands, feet, arms; but sometimes the term is applied to drawings of entire figures. To this class also belong drawings of the skeleton and muscles, as well as of draperies, animals, trees, foregrounds or other parts of landscapes. Academic drawings are those made in art academies from a living model in lamplight which brings out the shadows more than daylight. The position of the model is carefully arranged at the commencement of each sitting, and in that position he is required to remain. In this way the learners practise the drawing of the figure in various attitudes. In studying drapery and dress, a lay figure, made of wood and with movable joints, is clothed in va-

rious styles, and drawings made from it. Cartoons are drawings made on stout paper of the size of the paintings to be executed from them. They are mostly employed for pictures of large size, and are regularly used by fresco painters. The design is pricked through or traced from the cartoon on the surface that receives the finished picture.

**Dreadnaughts,** popular designation of the most modern type of great battleships and armored cruisers, derived from the name of the first ship of its class, the British "Dreadnaught," which had a displacement of 17,900 tons. In 1910 Brazil, France, Germany, Great Britain, Italy, Japan, Russia, and the United States were rushing work, not only on ships of the original "Dreadnaught" lines, but on still more powerful ones, designated as "Super-Dreadnaught." Extreme examples of the latest type were the British "Lion," claimed to be superior as a fighting machine to any battleship afloat, having a displacement of 26,000 tons, and cost $10,875,000, and the Brazilian "Rio Janeiro," then building in England, the largest of all battleships, with displacement of 32.000 tons, cost $14,500,000. On Aug. 17, 1923, the Naval Limitation Pact, drawn up at the Washington Conference, came into effect. This agreement caused the scrapping of 8 battleships and 5 battle cruisers building and 15 battleships already in service.

**Drebbel, Cornelius,** a Dutch philosopher; born in Alkmaar, Netherlands, in 1572. He invented the thermometer which was named for him, and is sometimes said to be the discoverer of the telescope and microscope. He died in London in 1634.

**Dredging,** the operation of removing mud, silt and other deposits from the bottom of harbors, canals, rivers, docks, etc., by mechanical means.

Dredging is also the operation of dragging the bottom of the sea in order to bring up oysters, or to procure shells, plants, and other objects for scientific observation. The oyster dredge is a light iron frame with a scraper like a narrow hoe on one side, and a suspending apparatus on the other. To the frame is attached a bag made of some kind of netting to receive the oysters. The dredges used by naturalists are mostly modifications of or somewhat similar to the oyster dredge. Scientific dredging has of late assumed a high importance as making us acquainted with the life of deep-sea areas.

**Dred Scott Case,** a notable case before the Supreme Court of the United States in 1856. A negro called Dred Scott, with his wife and two children, had been held as slaves by a Dr. Emerson in Missouri. After Dr. Emerson's death, Scott and his family claimed to be free, as having resided with their owner in Illinois and Minnesota, free States. The decision was hostile to their claim, and they were held to be still slaves.

**Dresden,** the capital of the republic of Saxony; situated in a beautiful valley on both sides of the river Elbe. Among the chief edifices besides several of the churches are the museum (joined on to an older range of buildings called the Zwinger), a beautiful building containing a famous picture gallery and other treasures; the Japanese Palace (Augusteum), containing the royal library of from 300,000 to 400,000 volumes, besides a rich collection of manuscripts; the Johanneum, containing the collection of porcelain and the historical museum, a valuable collection of arms, armor, domestic utensils, etc., belonging to the Middle Ages.

The city is distinguished for its excellent educational, literary, and artistic institutions, among which are the Polytechnic School, much on the plan and scale of a university; the Conservatory and School of Music; the Academy of Fine Arts, etc. The manufactures are not unimportant, and are various in character; the china, however, for which the city is famed, is made chiefly at Meissen, 14 miles distant. The commerce is considerable, and has greatly increased since the development of the railway system. The chief glory of Dresden is the gallery of pictures, one of the finest in the world. The pictures number about 25,000, and in particular comprise many fine specimens of the Italian, Dutch, and Flemish schools. Besides this fine collection the museum contains also engravings and drawings

amounting to upward of 350,000. There is here also a rich collection of casts exemplifying the progress of sculpture from the earliest times, and including copies of all the most important antiques. Dresden being thus rich in treasures of art, and favored by a beautiful natural situation, is the summer resort of many foreigners. It suffered severely in the Thirty Years' War, and also in 1813, when it was the headquarters of Napoleon's army. It was occupied by the Prussians in 1866, but was evacuated in the following spring. Pop. (1910) 548,308.

**Dresden, Battle of,** a battle fought in 1813 between the French under Napoleon and the allies under Schwarzenberg. Napoleon had come to the relief of the city, which was occupied by the French. The allies assaulted and bombarded the city, and soon after a great pitched battle was fought (Aug. 27), in which the allies were defeated.

**Dresden China,** a delicate, semi-transparent, highly-finished china made at Meissen, near Dresden. They are more remarkable for excellence of execution than for purity of design.

**Drew, Daniel,** an American capitalist; born in Carmel, N. Y., in 1788. He was the founder of the Drew Ladies' Seminary at Carmel and the Drew Theological Seminary at Madison, N. J. He also gave large sums of money to various Methodist colleges and schools. He died in New York city, Sept. 19, 1879.

**Drew, John,** an American comedian; born in Dublin, Ireland, Sept. 3, 1825. He made his first appearance at the Bowery Theater, New York, in 1845, and later became manager, in connection with William Wheatley, of the Arch Street Theater in Philadelphia. He acted in the principal cities of the United States and also in England and Australia. He died in Philadelphia, Pa., May 21, 1862. His wife, Louisa Drew, born in London, England, Jan. 10, 1820, for a whole generation stood at the head of comedy actresses. Her greatest success was as Mrs. Malaprop in "The Rivals." After her husband's death Mrs. Drew managed the Arch Street Theater for a number of years. She died in Larchmont, N. Y., Aug. 31, 1897. Their son, John Drew, born in Philadelphia, Nov. 13, 1853, first appeared at his father's theater in that city, and for a short season played there with Edwin Booth. He began his starring tours in the autumn of 1892, and has since been very successful.

**Drew Theological Seminary,** an educational institution in Madison, N. J.; founded in 1866, under the auspices of the Methodist Episcopal Church.

**Drexel, Anthony Joseph,** an American banker; born in Philadelphia, Pa., in 1826. He became the head of the well-known firm of Drexel & Co., Philadelphia, having been identified with it from the age of 13. He was zealous in promoting science and art, especially music, and contributed largely to philanthropic and educational interests. The Drexel Institute of Art, Science and Industry, Philadelphia, dedicated Dec. 18, 1891, was established by him, the building costing over $600,000, with an endowment fund of $1,000,000. He died in Karlsbad, Germany, June 30, 1893.

**Dreyfus, Alfred,** a French military officer; born in Alsace in 1859. He entered the Polytechnic School in Paris in 1878 and four years later was made a lieutenant of artillery. In 1889 he became a captain. He was arrested in 1894 charged with selling military secrets to Germany and Italy. He was convicted and on Jan. 5, 1895, publicly degraded from his rank in the presence of 5,000 troops. His sentence included life imprisonment on the Isle du Diable, off the coast of French Guiana, where he was rigidly confined till 1899, when the French Senate voted for revision of the Dreyfus case. He was accordingly brought back to France, re-tried by court-martial and notwithstanding the flagrant duplicity of his opponents, was again convicted, the Government, however, pardoning him. He published "Five Years of My Life" (1901), and after agitation for a revision of his case, was completely vindicated and re-entered the army as major, July 12, 1906. See also ESTERHAZY, PICQUART; ZOLA.

**Dreyse, Johann Nikolaus von,** a German inventor; born in Sommerda, near Erfurt, in Prussia, in 1787. In 1827 he invented a muzzle-loading, and in 1836 a breech-loading needle-

gun, which was adopted in the Prussian army in 1840. In 1864 Dreyse was ennobled. He died Dec. 9, 1867.

**Drift,** a loose aggregation or accumulation of transported matter, consisting of sand and clay, with a mixture of angular and rounded fragments of rock, some of large size, having occasionally one or more of their sides flattened or smoothed, or even highly polished. The smoothed surfaces usually exhibit many scratches parallel to each other, one set often crossing an older one.

**Drift Period,** the period during which the drift described above was deposited. Though there is no reason why it should not have recurred time after time during bygone geological ages, and perhaps it may be ultimately proved conclusively that it has done so, yet the term "drift-period" as a measure of duration is limited to the time commencing during the Newer Pliocene or Pleistocene, and terminating with the Post Pliocene or Post Pleistocene, during which drift was deposited in the latitudes in which we find it now. The drift is now universally attributed, as Agassiz long ago suggested, to the action of ice, the only controversy remaining being whether land ice or floating icebergs took the chief part in its distribution.

**Drill,** a metallic tool for boring a hole in metal or hard material such as stone. Its form varies with the material in which it works.

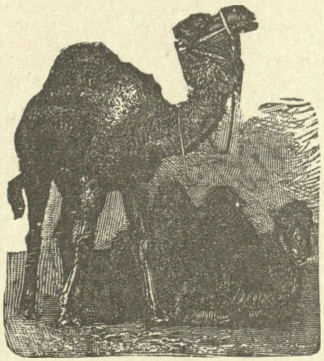
**Drip Stone,** a corona or projecting tablet or molding over the heads of doorways, windows, archways, niches, etc.

**Dromedary,** a swift variety of the one-humped camel, bearing the same relation to it as race horse to cart horse. Its usual pace is a trot, which, with terrible joltings to the rider, can be maintained often at the rate of nine miles an hour for many hours on a stretch. Many varieties for racing are reared, and white forms are much prized in some parts of the East.

**Dropsy,** a preternatural collection of serous or watery fluid in the cellular tissue, or different cavities of the body. It receives different appellations, according to the particular situation of the fluid.

Dropsy is not a disease in itself. It is a result, a symptom, and it is equally evident that it may be a consequence of a great variety of circumstances.

One of the commonest forms of dropsy is obstruction to the circulation in the veins; and in such cases the dropsy occurs usually chiefly in the most dependent parts, about the feet and ankles. Pressure of tumors upon veins is a frequent cause. But nothing produces dropsy in this way so quickly as some disorder of the heart impeding the due flow of blood through it. In such a case the dropsy begins in the feet and ankles, and creeps upward slowly or rapidly according to the extent of the failure of the heart.



DROMEDARY.

**Drosky, Droshky,** or **Droschky,** a Russian and Prussian four-wheeled vehicle in which the passengers ride astride a bench, their feet resting on bars near the ground. It has no top.

**Drouet, Jean Batiste, Comte d'Erlon,** a French marshal; born in Rheims July 29, 1765. On the return of Napoleon from Elba he contrived to seize the citadel of Lille, in which he had been imprisoned, and held it for the emperor, who made him a peer of France. At the battle of Waterloo he commanded the 1st corps d'armee. After the capitulation of Paris he fled to Bavaria, where he resided till the July Revolution, when he returned to France, and received in 1832 the command of the army of Vendee. During

1834–1835 he held the office of governor-general of Algeria, and in 1843 was elevated to the rank of marshal. He died Jan. 25, 1844.

**Drouyn de Lhuys, Edouard,** a French statesman; born in Paris, Nov. 19, 1805. Under Louis Napoleon's presidency he became Minister of Foreign Affairs, and in 1849 went to London for a short time as ambassador; after the coup d'etat he became one of the vice-presidents of the Imperial Senate, and again Minister of Foreign Affairs. Being disappointed at the issue of the Vienna Conferences in 1855, he resigned his office. In 1863 he was recalled to his old post, resigning again in 1866. He died March 1, 1881.

**Drown, Thomas Messinger,** an American scientist; born in Philadelphia, March 19, 1842. He was graduated at the University of Pennsylvania in 1862, studying later at Yale, Harvard, and Heidelberg. From 1874 to 1881 he was Professor of Chemistry at Lafayette College, and from 1885 to 1895 at the Massachusetts Institute of Technology. After 1895 he was president of Lehigh University. He died at Bethlehem, Pa., Nov. 16, 1904.

**Drowning,** suffocation through immersion in a liquid. Complete insensibility arises in from one to two minutes after submersion, recovery being still possible; death occurs in from two to five minutes. As long as the heart continues to beat, recovery is possible; after it has ceased, it is impossible. Newly-born children and young puppies stand submersion longer than the more fully grown. Various methods have been devised for the restoration of the apparently drowned. That of Dr. Sylvester, recommended by the English Humane Society, produces deeper inspiration than any other known method. That known as the "direct method," introduced by Dr. Benjamin Howard, of New York, effects the most complete expiration. These two methods combined and therefore tending to produce the most rapid oxygenation of the blood, the real object to be gained, form the basis for the instructions given out primarily for the use of life-saving crews and distributed also in convenient form among ship captains and mariners. They are here reproduced.

Rule 1. Arouse the Patient.— Do not move the patient unless in danger of freezing; instantly expose the face to the air, toward the wind if there be any; wipe dry the mouth and nostrils; rip the clothing so as to expose the chest and waist; give two or three quick, smarting slaps on the chest with the open hand.

If the patient does not revive proceed immediately as follows:

Rule 2. To Expel Water from the Stomach and Chest.— Separate the jaws and keep them apart by placing between the teeth a cork or small bit of wood; turn the patient on his face, a large bundle of tightly rolled clothing being placed beneath the stomach; press heavily on the back over it for half a minute, or as long as fluids flow freely from the mouth.

Rule 3. To Produce Breathing.— Clear the mouth and throat of mucus by introducing into the throat the corner of a handkerchief wrapped closely around the forefinger; turn the patient on the back, the roll of clothing being so placed as to raise the pit of the stomach above the level of the rest of the body. Let an assistant with a handkerchief or piece of dry cloth draw the tip of the tongue out of one corner of the mouth (which prevents the tongue from falling back and choking the entrance to the windpipe), and keep it projecting a little beyond the lips. Let another assistant grasp the arms just below the elbows and draw them steadily upward by the sides of the patient's head to the ground, the hands nearly meeting (which enlarges the capacity of the chest and induces inspiration). While this is being done let a third assistant take position astride the patient's hips with his elbows resting on his own knees, his hands extended ready for action. Next, let the assistant standing at the head turn down the patient's arms to the sides of the body, the assistant holding the tongue changing hands if necessary (changing hands will be found unnecessary after some practice; the tongue, however, must not be released), to let the arms pass. Just before the patient's hands reach the ground the man astride the body will grasp the body with his hands, the balls of the thumb resting on either side of the pit of the stomach, the fingers falling into the grooves between the short ribs.

Now, using his knees as a pivot, he will at the moment the patient's hands touch the ground throw (not too suddenly) all his weight forward on his hands, and at the same time squeeze the waist between them as if he wished to force anything in the chest upward out of the mouth; he will deepen the pressure while he slowly counts one, two, three, four (about five seconds), then suddenly let go with a final push, which will spring him back to his first position. (A child or very delicate patient must, of course, be more gently handled.) This completes expiration.

At the instant of his letting go, the man at the patient's head will again draw the arms steadily upward to the sides of the patient's head as before (the assistant holding the tongue again changing hands to let the arms pass if necessary), holding them there while he slowly counts, one, two, three, four (about five seconds).

Repeat these movements deliberately and perseveringly 12 to 15 times in every minute — thus imitating the natural motions of breathing.

If natural breathing be not restored after a trial of the bellows movement for the space of about four minutes then turn the patient a second time on the stomach, as directed in Rule 2, rolling the body in the opposite direction from that in which it was first turned, for the purpose of freeing the air passage from any remaining water. Continue the artificial respiration from one to four hours, or till the patient breathes, according to Rule 3; and for a while, after the appearance of returning life, carefully aid the first short gasps, till deepened into full breaths. Continue the drying and rubbing, which should have been unceasingly practised from the beginning by assistants, taking care not to interfere with the means employed to produce breathing. Thus the limbs of the patient should be rubbed, always in an upward direction toward the body, with form-grasping pressure and energy, using the bare hands, dry flannels, or handkerchiefs, and continuing the friction under the blankets or over the dry clothing. The warmth of the body can also be prompted by the application of hot flannels to the stomach and armpits, bottles or bladders of hot water, heated bricks, etc., to the limbs and soles of the feet.

Rule 4. After-Treatment.— Externally: As soon as breathing is established, let the patient be stripped of all wet clothing, wrapped in blankets only, put to bed comfortably warm, but with a free circulation of fresh air, and left to perfect rest. Internally: Give whiskey or brandy and hot water in doses of a teaspoonful to a tablespoonful, according to the weight of the patient, or other stimulant at hand, every 10 or 15 minutes for the first hour, and as often thereafter as may seem expedient. Later manifestations: After reaction is fully established there is great danger of congestion of the lungs, and if perfect rest is not maintained for at least 48 hours, it sometimes occurs that the patient is seized with great difficulty of breathing, and death is liable to follow unless immediate relief is afforded. In such cases apply a large mustard plaster over the breast. If the patient gasps for breath before the mustard takes effect assist the breathing by carefully repeating the artificial respiration.

Modification of Rule 3.— To be used after Rules 1 and 2 in case no assistance is at hand.

To Produce Respiration.— If no assistance is at hand and one person must work alone, place the patient on his back with the shoulders slightly raised on a folded article of clothing; draw forward the tongue and keep it projecting just beyond the lips; if the lower jaw be lifted the teeth may be made to hold the tongue in place; it may be necessary to retain the tongue by passing a handkerchief under the chin and tying it over the head.

Grasp the arms just below the elbows and draw them steadily upward by the sides of the patient's head to the ground, the hands nearly meeting.

Next lower the arms to the side and press firmly downward and inward on the sides and front of the chest over the lower ribs, drawing toward the patient's head.

Repeat these movements 12 to 15 times every minute, etc.

Drowning was formerly a mode of capital punishment in Europe and Rome. The "Lex Cornelia" decreed that a parricide should be sewn up in a sack with a dog, cock, viper, and ape, and thrown into the sea. Anglo-Saxon codes ordered women convicted

of theft to be drowned. In Scotland, in 1623, 11 gypsy women were sentenced to be drowned in the Nor' Loch. In France, drowning was employed as late as 1793. To smother faithless wives in mud was a punishment in the Middle Ages. In Ireland there was an execution by drowning in 1777.

J. Ackerman Coles, M. D.

**Droz, Gustave,** a French story-teller; born in Paris, June 6, 1832. He was trained for a painter, but in 1864 gave up the pencil for the pen. He excelled in little sketches of life and manners, and his lively, playful descriptions of bachelorhood and married life captivate the public. He died Oct. 22, 1895.

**Drug,** a name applied to all articles used for medicinal purposes, though the term should, perhaps, be strictly confined to what are called simples, balsams, gums, resins, and exotic products used as medicaments in a dry state.

**Drugget,** a coarse and flimsy woolen texture, chiefly used for covering carpets.

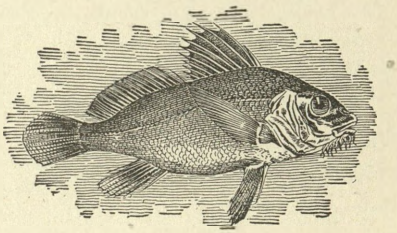
**Druids,** the priests of the Celts of Gaul and Britain. According to Julius Cæsar, they possessed the greatest authority among the Celtic nations. They had some knowledge of geometry, natural philosophy, etc., superintended the affairs of religion and morality, and performed the office of judges. They had a common superior, who was elected by a majority of votes from their own number, and who enjoyed his dignity for life. They took unusual care to fence themselves round with mysteries, and it is probable that they cherished doctrines unknown to the common people; but that they had a great secret philosophy which was handed down by oral tradition is very unlikely. Of their religious doctrines little is known. Human sacrifice was one of their characteristic rites, the victims being usually prisoners of war.

**Druids, United Ancient Order of,** a secret society springing from a club organized in London, England, in 1871, solely for the entertainments of its members. A "grove" was instituted in New York in 1833, and was the parent of the order in the United States. The order rapidly extended through the country, and from the past officers a supreme body was organized under the title of the "Grand Grove of the United States of the United Ancient Order of the Druids," which declared its independence of the English supreme grove, made an entire change in the ritual, and introduced a number of new degrees.

**Druid Stones,** a name given in the S. of England and other parts of the country to those weather-worn, rough pillars of gray sandstone which are scattered over the surface of the chalk-downs in England, in Scotland, and its islands, and which exist in great numbers in other countries; generally in the form of circles, or in detached pillars; it is not certain, however, that the Druids had any connection with these stones.

**Drum,** a musical instrument formed by stretching parchment over the heads of a cylinder of wood or over a bowl-shaped metallic vessel.

**Drumfish,** or **Drum,** and other species of the same genus, fishes found



DRUMFISH.

on the Atlantic coasts of North America, and so named from the deep drumming sound they make in the water.

**Drumgoole, John C.,** an American clergyman; born in Longford co., Ireland, in 1828. He was ordained a Roman Catholic priest in the United States, and in 1871 began an organized mission in New York city for homeless boys. The work grew under his charge and he built in New York city a home called the "Mission of the Immaculate Virgin," and established an industrial farm of over 600 acres on Long Island, all in the interest of homeless boys. He died in New York city, March 28, 1888.

**Drummond, Sir George Gordon,** an English soldier; born in 1771. He entered the British army as ensign in 1789; became lieutenant-colonel 1794; served with distinction in the Holland campaign, 1794–1795, and in Egypt, 1800; was staff-officer at Jamaica several years; on duty in Canada, 1808–1811; promoted lieutenant-general, 1811; again ordered to Canada as second in command under Sir George Prevost, 1813; planned and effected the capture of Fort Niagara, and planned the successful attack on Black Rock and Buffalo; led a combined military and naval force against Oswego and destroyed the American works and stores, May, 1814; was in command of the British forces at the battle of Lundy's Lane, July 25, and in August invested, but failed to capture, Fort Erie. In 1815 he was appointed Governor-General of Canada, resigned and returned to England, and in 1817 received the grand cross of the Order of the Bath. He died in 1854.

**Drummond, Henry,** a Scotch geologist and religious writer; born in Stirling in 1851. He studied theology at Edinburgh University, but did not adopt the clerical profession. In 1877 he was appointed Professor of Natural Science in the Free Church College, Glasgow. "Natural Law in the Spiritual World" (1883), and its successor, "The Ascent of Man," applications of modern scientific methods to the immaterial universe, made his popular. fame. He traveled in Central Africa (1883–1884) studying its botany and geology, and later wrote "Tropical Africa" (1888). Other semi-religious writings of his are: "Pax Vobiscum" (1890); "The Greatest Thing in the World" (1890); "The Programme of Christianity" (1892). He died in Tunbridge Wells, England, March 11, 1897.

**Drummond, Thomas,** inventor of the Drummond Light, was born in Edinburgh, Scotland, in 1797, and died in Dublin, Ireland, April 15, 1840.

**Drummond Light,** a light invened by Thomas Drummond, about 1826, to supply a deficiency which was found to exist in the means of making distant stations visible from each other. It is made by exposing a small ball of quicklime to the action of the oxy-hydrogen blow-pipe, or the lime may be placed in the flame of a spirit-lamp fed by a jet of pure oxygen gas. Drummond's apparatus was so constructed that the lamp fed itself automatically with spirit and with oxygen, supplying itself with balls of lime as they were gradually consumed, and was provided with a parabolic silvered mirror. With this apparatus the light produced by a ball of lime not larger than a boy's marble was visible at a distance of nearly 70 miles, in a direct line.

**Drury College,** a co-educational institution in Springfield, Mo.; founded in 1873, under the auspices of the Congregational Church.

**Drury's Bluff,** an eminence on the James river, near Fort Darling, 8 miles S. of Richmond, Va. It was the scene of a battle, May 16, 1864, in which the Confederates under Beauregard defeated the Union troops under Butler, with a loss to the Confederates of 2,500 and to the Union army of 3,012.

**Druse, Druze, Deruz,** or **Dorouz,** a politico-religious sect of Mohammedan origin, but deemed by orthodox Moslems heretical. El-Hakim Biami-Allah, the sixth Fatimite Caliph of Egypt, a cruel and fanatical man, who lived in the 11th century, proclaimed himself an incarnation of God, and established a secret society. When walking in the vicinity of Cairo, his capital, he disappeared from his subjects' view, the most natural explanation being that he was assassinated and his body hidden somewhere. His followers believed in his return to this earth to reign over it, and propagated their faith in the adjacent lands. Two of the most notable missionaries were the Persian messengers, Hamzah and Mohammed ben Ismail ed Derazi. The latter proclaimed the Druse tenets with such zeal in Lebanon that the converts to belief in El-Hakim were called not Hakimites but Druses. The Druses believe in the unity of God, who they think was manifest in the person of several individuals, the last of them Hakim. Their day of worship is Thursday. Ethnologically they are Arabs who came from the E. parts of Syria and settled in Lebanon and Antilebanon in the 11th century. Their territory on the Lebanon is S. of the Maronites. They extend thence to the Hauran and to Damascus. In

1860 they attacked the Maronites, about 12,000 of whom they cruelly massacred, not sparing even women or male children in their fury. This outburst was fast passing into a general rise of the Mohammedans on the Christians of Syria, when the arrival of Turkish and French troops, in August and September, 1860, and the execution of 167 Druses, more deeply criminal than others, restored at least the semblance of tranquillity. No similar outbreak has since occurred.

**Drusilla,** a daughter of Herod Agrippa I., King of the Jews. She was born A. D. 38; married Azizus, King of Emesa, whom she divorced in order to marry Felix, procurator of Judea. She is thus the Drusilla who is mentioned in the Acts, and was probably present when Paul preached before Felix.

**Drusus,** the name of several distinguished Romans, among whom were: Marcus Livius, orator and politician; became tribune of the people in 122 B. C. Marcus Livius, son of the above. He rose to be tribune of the people, and was assassinated B. C. 91. Nero Claudius, brother of the Emperor Tiberius, born B. C. 38. By a series of brilliant campaigns he extended the Roman empire to the German Ocean and the river Elbe, and was hence called Germanicus. By his wife Antonia, daughter of Mark Antony, he had a daughter, Livia, and two sons, Germanicus and Claudius, the latter of whom afterward became emperor. He died in 9 B. C.

**Dryad,** a nymph of the woods; a deity supposed to preside over the woods; a wood-nymph. They differ from hamadryads in that the latter were attached to particular trees, with which they were born and died.

**Dryden, John,** an English poet; descended from an ancient family, his grandfather being Sir Erasmus Dryden of Canons Ashby, Northamptonshire; he was born near Aldwinkle, Northamptonshire, in 1631; he went to Trinity College, Cambridge, being here elected to a scholarship. After leaving the university he went to London, where he acted as secretary to his cousin, Sir Gilbert Pickering, a favorite of Cromwell; and on the death of the Protector he wrote his historic stanzas on that event. At the Restoration, however, he hailed the return of Charles II. in "Astræa Redux," and from that time his devotion to the Stuarts knew no decay. Dryden is unequalled as a satirist among English poets, and the best of his tragedies are unsurpassed by any since written. His poetry as a whole is more remarkable for vigor and energy than beauty, but he did much to improve English verse. He was also an admirable prose writer. He died May 1, 1700, and was buried in Westminster Abbey.

**Dry Rot,** a name given to a decay in timber caused by the mycelium of several species of fungus, which under certain conditions of heat and moisture attack woodwork in ships, houses, and wooden erections in general, growing in the dark, and rapidly increasing in bulk, first covering the surface with a series of thread-like filaments, which are continually being added to, and ultimately forming a thick, leathery, white substance, such as is often found behind the partitions of walls and under floors. It penetrates the wood in all directions, reducing it to powdery rottenness, in many cases doing irreparable mischief before it is observed.

**Dual,** in grammar, that number which is used, in some languages, to designate two things, while another number (the plural) exists to express many.

**Dualism,** the philosophical exposition of the nature of things by the hypothesis of two dissimilar primitive principles not derived from each other. Dualism in religion is chiefly confined to the adoption of a belief in two fundamental beings, a good and an evil one, as is done in some Oriental religions, especially that of Zoroaster. In metaphysics, dualism is the doctrine of those who maintain the existence of spirit and matter as distinct substances, in opposition to idealism, which maintains we have no knowledge or assurance of the existence of anything but our own ideas or sensations.

**Dual Personality,** the supposed distinction, and potentially independent action, of each of the cerebral hemispheres; from one of which, the left, arises all the good and ennobling aims of life, while from the other come all the malevolent influences.

**Dubarry, Marie Jeanne, Comtesse,** mistress of Louis XV.; born in Vaucouleurs, Aug. 19, 1746; went to Paris in youth; exercised a powerful influence at court, and with some of her confidants completely ruled the king. After the death of Louis she was dismissed from court and sent to live in a convent near Meaux. She received a pension from Louis XVI. During the reign of terror she was arrested as a royalist and executed Dec. 7, 1793.

**Dublin,** the metropolis of Ireland, is situated in County Dublin, within a mile of Dublin bay, into which the Liffey river runs after dividing the city, through which its course is nearly from W. to E., into equal parts. The bay is neither commodious nor safe, particularly in winter. Its defects are remedied, however, by the harbor inclosed within the N. and S. walls, the latter of which is a magnificent wall of stone running out into the sea for 3½ miles from the S. bank of the Liffey, and terminated by a lighthouse. There is also a harbor of refuge at Kingston.

The most important literary and scientific institutions are Trinity College; the Royal University of Ireland; the Roman Catholic University College; Wesley College; the Royal Dublin Society; the Royal Hibernian Academy of Painting, Sculpture, and Architecture; the Royal Irish Academy; the Archæological Society; the Royal Zoölogical Society, etc. The principal libraries, besides that of Trinity College, are the National Library, Marsh's Library, containing about 18,000 volumes; and that of the Royal Dublin Society.

Dublin contains two Protestant Episcopal cathedrals — St. Patrick's and Christ Church. St. Patrick's Cathedral is an antique building, erected in 1190, decorated with a steeple in 1370, and a very lofty spire in 1750. Christ Church, built in 1038, the ancient cathedral of Dublin, is another venerable pile. St. George's Church is a superb edifice, with a magnificent front and lofty spire. The charitable institutions are numerous, and some of them possess splendid buildings.

A little N. W. of the city, up the Liffey, is Phœnix Park, one of the most extensive and beautiful public parks of which any European city can boast. Its area is 1,759 acres; it is adorned with trees, and its surface picturesquely broken into heights and hollows. In the Phœnix Park are the vice-regal lodge, the residence of the lord-lieutenant, with gardens and grounds occupying 160 acres; the chief secretary's and under-secretary's official residences; the Royal Hibernian Military School and the depot of the Royal Irish Constabulary; as also the gardens of the Royal Zoölogical Society. In this park is an obelisk over 200 feet in height, erected in honor of the Duke of Wellington.

On April 24, 1916, a rebellion, fomented by the Sinn Fein element, broke out in the city; a Provisional Government of the Republic of Ireland was organized and the independence of Ireland proclaimed. The Irish Free State was inaugurated as a world's commonwealth on Dec. 6, 1922, by proclamation of King George, and the swearing in of Timothy M. Healy as Governor-General and the meeting of the permanent parliament which succeeded the provisional regime. William T. Cosgrove was chosen President. Pop. (Est.) 1922, 427,000.

**Dubois, Augustus Jay,** an American engineer; born in Newton Falls, O., April 25, 1849. He was graduated at Sheffield Scientific School in 1869, and from 1884 was Professor of Civil Engineering there. D. Oct. 19, 1915.

**Dubuque,** city and capital of Dubuque county, Ia.; on the Mississippi river, and the Chicago, Burlington & Quincy and other railroads; 183 miles N. W. of Chicago; is the oldest town in the State; contains St. Raphael's Cathedral (R. C.), Federal Building, Wartburg Seminary (Ev. Luth.), St. Joseph's College (R. C.), College of the Northwest (Ger. Presb. theological school), Iowa Institute of Arts and Sciences, and Mt. St. Joseph's and St. Vincent's academies; is the see of a Roman Catholic and a Protestant Episcopal bishop; has extensive commerce by rail and water; and annual manufactures valued at over $15,000,000. Pop. (1920) 39,141.

**Ducange, Victor Henri Joseph Drahain,** a French poet and story teller; born in The Hague, Nov. 24, 1783. His stories were received with great favor. Died Oct. 23, 1833.

**Ducat,** the name of a coin current in several countries. It is no longer the monetary unit in any country. It was formerly a favorite coin with the Dutch, and, owing to the excellence of the pieces struck, they were sought for and imitated by several other countries, and especially Russia. Ducats now everywhere circulate at a valuation, where they circulate at all, or are bought and sold simply as bullion.

**Ducey, Thomas James,** an American clergyman; born in Lismore, Ireland, Feb. 4, 1843. He came to the United States when five years old. After his graduation at the Theological Seminary in Troy, N. Y., he was ordained a Roman Catholic priest in 1868. He founded St. Leo's Church in New York city in 1880 and has been its pastor ever since. In 1891 the Pope conferred on him the title of Monsignor. He was an active champion of labor and reform. D. in 1909.

**Du Chaillu, Paul Belloni,** a French-American explorer and writer; born in Paris, July 31, 1835. His travels in Africa, in which he discovered the gorilla and the pigmies, are detailed in "A Journey to Ashango Land" (1867), and "My Apingi Kingdom" (1870). "The Land of the Midnight Sun" (1881) deals with Norway. "The Viking Age" (1887), is a more ambitious work, intended to recreate the old Norse civilization. He also wrote many books for the young. He died May 1, 1903.

**Duchesne, Andre,** a French historian; born in Touraine in 1584. History and geography were his favorite studies from his youth, and under Richelieu's ministry he was appointed royal geographer and historiographer. His most important works are the histories of England, Scotland, and Ireland, of the Popes down to Paul V., and of the House of Burgundy, and his collections of the early Norman and French histories. His industry was extraordinary; he is said to have left more than 100 folios in manuscript. He died in 1640.

**Duchobortzi** (Warriors of the Spirit), a sect of Russian mystics, traceable to the middle of the 18th century, who depend on an inward light, like the Quakers, attach little importance to the sacraments, priesthood, and services of the Church, refuse military service, and reject the doctrine of the Trinity and the divinity of Christ. The Emperor Alexander I. allowed them to settle in Taurida, in South Russia; Nicholas I., in 1841, transferred them to Transcaucasia. In 1899 a considerable colony of these people was settled in Canada through the influence of Count Tolstoi. In the winter of 1902–3 the colony of these people in Canada were seized with a religious mania which led them to abandon their homes and their cattle, and would have resulted in their destruction but for the strenuous interference of the authorities.

**Duck.** The ducks proper are distinguished from the swans comprised in the same family, by having shorter necks; and from the geese, also of the same family, by having shorter necks, and legs less strong and placed farther back. They also subsist largely on insects and other animal food, while the geese and swans live mostly on vegetable food. Among the ducks we may mention mallard, or common wild duck, which is found both in Europe and America. This is the original stock of the domesticated duck, and appears to have been reclaimed at a very early period. It is found in nearly every fresh-water lake and river in the greater part of the United States and in the West Indies. The flesh of the wild duck is held in general estimation, and various methods are resorted to in order to obtain these birds in quantities.

The musk duck, erroneously called muscovy duck, is the largest of the duck kind, and approaches nearly to the size of a goose. It has obtained its name from a strong smell of musk which exhales from its body, and not because it comes from Russia, as has been supposed, since it is a native of South America. The musk ducks are tamed in great quantities in the West Indies, and are found wild in Guiana, where they nestle on the trunks of trees, close to the water's edge. They feed much on a plant called wild rice, and are difficult to approach.

The canvasback duck is peculiar to the United States, and was known to the epicure long before it was described by the naturalist. The can-

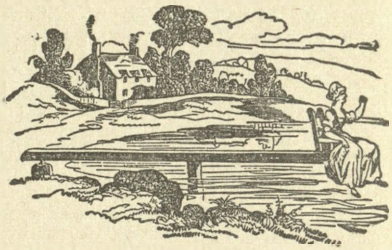
vasback ducks arrive in the United States from the N. about the middle of October, and principally assemble in the numerous rivers in the neighborhood of Chesapeake bay. On the Susquehanna they are called canvasbacks, on the Potomac whitebacks, and on the James sheldrakes. The canvasback is constantly attended by another species, the American widgeon which manages to make a good subsistence from his labors. This bird is extremely fond of the tender roots of that particular species of plant on which the canvasback feeds. The widgeon which never dives, watches the moment the canvasback rises, and before he has his eyes well opened, snatches the morsel from his mouth, and makes off.

Among other species of ducks are the shoveler, remarkable for the strange form of its bill; the gadwall, which is more rare in America than in Europe; pintail or sprigtail, remarkable for the form of its tail, abundant in both hemispheres; black or dusky duck, peculiar to America, and very abundant, is perhaps the most sagacious and timid of all the American ducks; summer or wood duck, not more remarkable for its great beauty in which it stands preëminent, than for its habits, its migrations being directly opposed to those of the other species; teal, eider-duck; velvet duck, found in both hemispheres; its flavor is rank and fishy, and it is therefore seldom sought after; scoter, found both in Europe and America; pochard or redhead; common to both continents; it approaches very near to the canvasback in delicacy; its usual weight is about 1¾ pounds; scaup-duck or bluebill, a well known and common species in both continents; long tailed duck, or old wife; common to both continents, remarkable for the long and slender middle feathers of its tail; and the harlequin duck; a magnificent species found on both continents; it derives its name from the singularity of its markings; along the coast of New England it is called the lord.

**Duck,** a species of coarse cloth made of flax, lighter and finer than canvas.

**Duckbill,** also called the duck-mole, water-mole, or duck-billed platypus, a genus of mammals peculiar to Australia and the neighboring islands. It is of all animals which suckle their young the most like a bird. It has a rather flat body of about 18 inches in length, and the head and snout greatly resemble those of a duck, whence the popular name; the feet are webbed and flat, tail short, broad, and flat.

**Ducking Stool,** a chair in which scolding and vixenish wives were formerly securely fastened, to receive the punishment of being ducked in water. The woman was placed in the chair with her arms drawn backward; a bar was placed across her back and inside her elbows, while another bar



DUCKING STOOL.

held her upright; in this uncomfortable position she was securely tied with cords. The persons appointed to carry out the punishment, by raising their end of the beam, caused the unfortunate culprit to go overhead into the water. By pulling down their end with a chain, she was once more brought to the surface.

**Duckweed,** the popular name of several plants growing in ditches and shallow water, floating on the surface and serving for food for ducks and geese.

**Duclerc, Charles Theodore Eugene,** a French statesman; born in Bagneres-de-Bigorre, France, Nov. 9, 1812. He was elected vice-president of the National Assembly in 1875; chosen a senator for life in the same year; and became premier in 1882. He died in July, 1888.

**Ducornet, Louis Cesar Joseph,** a French artist; born in Lille Jan. 10, 1806. Born without arms, he

learned in early childhood to use his feet for hands, and when 13 years old showed such skill in drawing with his toes that Watteau received him as a pupil in the Lille Academy of Design.

At the end of three years he took the first prize for a drawing of the human figure from life, and received a pension from the city which the government subsequently increased. He then went to Paris for more advanced study, painted "The Parting of Hector and Andromache" (1828), and presented it to his native city. He continued painting till within a few weeks of his death. His last work of note, "Edith Finding the Body of Harold," was ordered by Napoleon III. and exhibited in 1855. He died in Paris, April 27, 1856.

**Ductility,** the quality of adaptedness of metals for wire manufacture. In ductibility the order of metals is —gold, silver, platinum, iron, copper, zinc, tin, lead and nickel; in malleability—gold, silver, copper, tin, platinum, lead, zinc, iron, nickel.

**Dudley, Irving Bedell,** diplomat; b. Jefferson, O., Nov. 30, 1861, became lawyer at San Diego, Cal., Minister to Peru, 1897, and Ambassador to Brazil, 1906. He died Nov. 27, 1911.

**Dudley, Thomas Underwood,** an American clergyman; born in Richmond, Va., Sept. 26, 1837. He was graduated at the University of Virginia in 1858, and served in the Confederate Army during the Civil War, attaining the rank of major. Completing his studies at the Virginia Theological Seminary, was made assist.-bishop 1875, and Bishop of Kentucky 1884. He died Jan. 22, 1904.

**Dudley, William Lofland,** an American scientist; born in Covington, Ky., April 16, 1859. He was graduated at the University of Cincinnati in 1880. His iridium process for electroplating is very successful. From 1886 he was Professor of Chemistry at Vanderbilt University, being also dean of the Medical Department. He was Director of Affairs of the Tennessee Centennial Exposition in 1897. He died Sept. 8, 1914.

**Dudley, William Russel,** an American botanist; born in Guilford, Conn., March 1, 1849. He was graduated at Cornell in 1874, becoming Assistant Professor of Botany there in 1876. From 1892 he was Professor of Botany at Leland Stanford, Jr., University. He died in 1911.

**Duel,** a premeditated and prearranged combat between two persons with deadly weapons, for the purpose of deciding some private difference or quarrel. The combat generally takes place in the presence of witnesses called seconds, who make arrangements as to the mode of fighting, place the weapons in the hands of the combatants, and see that the laws they have laid down are carried out. The origin of the practice of duelling is referred to the trial by "wager of battle" which obtained in early ages. This form of duel arose among the Germanic peoples, and a judicial combat of the kind was authorized by Gundebald, King of the Burgundians, as early as 501 A. D. When the judicial combat declined the modern duel arose, being probably to some extent an independent outcome of the spirit and institutions of chivalry. France was the country in which it arose, the 16th century being the time at which it first became common. In 1602, Henry IV. issued a decree against it, and declared it to be punishable with death. Many subsequent prohibitions were issued, but they were all powerless to stop the practice. During the minority of Louis XIV. more than 4,000 nobles are said to have lost their lives in duels.

The practice of duelling was introduced into England from France in the reign of James I.; but it was never so common as in the latter country. Cromwell was an enemy of the duel, but as society became more polished duels became more frequent, and they were never more numerous than in the reign of George III.

By English law fatal duelling is considered murder, no matter how fair the combat may have been, and the seconds are liable to the same penalty as the principals. In 1813 the principal and seconds in a fatal duel were sentenced to death, though afterward pardoned. An officer in the army having anything to do with a duel renders himself liable to be cashiered. In France duelling still prevails to a certain extent; but the combats are usually very bloodless and ridiculous af-

fairs. In the German army it is common, and is recognized by law. The duels of German students, so often spoken of, seldom cause serious bloodshed.

Some recent German duels have been cowardly murders, and the German emperor has been blamed for leniency to duellists.

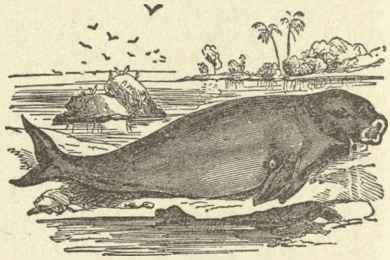
In the United States duels are now uncommon, and nearly everywhere prohibited by State laws. In some of the States the killing of a man in a duel is punishable by death or by forfeiture of political rights, and in a large number the sending of a challenge is a felony. In the army and navy it is forbidden. During the Revolution there were a number of duels. Charles Lee was wounded by John Laurens; Gwinnett, a signer of the Declaration, was killed by General McIntosh; Alexander Hamilton was slain by Aaron Burr. Decatur was killed and Barron wounded fighting a duel. Andrew Jackson killed Dickinson, and fought several other duels. Colonel Benton killed Lucas, and had other encounters. Henry Clay and John Randolph fought in 1826. De Witt Clinton was a duellist.

**Dufferin, Frederick Temple Hamilton-Blackwood, Marquis of,** a British statesman and author, son of the 4th Baron Dufferin; born in Florence in 1826. He began his public services in 1855, when he was attached to Earl Russell's mission to Vienna. Subsequently he was sent as commissioner to Syria in connection with the massacre of the Christians (1860); was under Indian secretary (1864–1866); under secretary for war (1866); chancellor of the Duchy of Lancaster (1868–1872); Governor-general of Canada (1872–1878); ambassador at St. Petersburg (1879–1881); and at Constantinople (1882); sent to Cairo to settle the affairs of the country after Arabi Pasha's rebellion (1882–1883); Viceroy of India (1884–1888); British ambassador to Italy (1889), to France (1891). Died Feb. 12, 1902.

**Duffy, Sir Charles Gavan,** an Irish patriot; born in County Monaghan in 1816. He had an active share in promoting the Tenant League and the Independent Irish party, and on the break up of the latter, emigrated to Australia in 1856. After some time of practice at the Melburne bar, he drifted into politics, and after the establishment of the Victorian constitution, rose in 1857 to be Minister of Public Works, of Lands in 1858 and 1862, and Prime Minister in 1871. He was defeated next year, was knighted in 1873, and in 1877 elected Speaker of the Legislative Assembly. His little work, "The Ballad Poetry of Ireland" has been for years a household book in his native country. He died Feb. 9, 1903.

**Dugdale, Sir William,** an English antiquarian; born in Shustoke, Warwickshire, England, Sept. 12, 1605. His monumental work is the "Monasticon Anglicanum" (1655), reissued with additions 1817–1830 and 1846; a mine of information on the history and biography of English cathedrals, and English history in general. Died in Shustoke, Feb. 10, 1686.

**Dugong,** an herbivorous mammal, belonging to the Manatees. It ranges from 10 to 20 feet in length. The color is a slaty-brown or bluish-black above and whitish below. Dugongs



DUGONG.

frequent the shallow quiet waters of bays, inlets and river estuaries where marine vegetation is abundant. They yield a clear oil of the best quality, free from all objectionable smell, and strongly recommended as a remedial agent in lieu of cod-liver oil.

**Dugout,** a cave dug in the side of a hill or mountain, used as a dwelling or as a place of refuge from cyclones and tornadoes. These are frequently to be seen in some of the Western States. Also the name of a canoe or boat made from a log of wood.

**Duguay-Trouin, René,** a French seaman; born in St. Malo, June 10, 1673. He entered the royal marines as a captain, and signalized himself so much in the Spanish war that the king granted him letters of nobility, in which it was stated that he had captured more than 300 merchant ships and 20 ships of war. By the capture of Rio de Janiero (1711) he brought the crown more than 25,000,000 francs. He died Sept. 27, 1736.

**Du Guesclin, Bertrand,** Constable of France; born about 1314; died 1380. He was captured by Chandos at the battle of Auray in 1364, and ransomed for 100,000 francs. While serving in Spain against Peter the Cruel he was made prisoner by the English Black Prince, but was soon liberated. Afterwards, he expelled the English from Poitou, Guienne, and Normandy by a brilliant campaign.

**Duilius, Caius,** a Roman general; born about 300 B. C. He rose to the highest rank as a naval and military officer. He became consul in 260 B. C., defeating the Carthaginians near Mylæ in that year. In honor of this victory, Rome's first success on the sea, a magnificent column (columna rostrata) was erected.

**Dujardin, Felix,** a French scientist; born in Tours, April 5, 1801. He is notable for his investigation of organisms such as helmintha and foraminifera, and as the establisher of the views now current as to the nature of protoplasm. He died in Rennes, April 8, 1860.

**Dujardin, Karel,** a Dutch artist; born in Amsterdam in 1640; died in Venice in 1678.

**Duke,** in Great Britain, the highest rank in the peerage. The first hereditary duke in England was the Black Prince, created by his father, Edward III., in 1336. The Duchy of Cornwall was bestowed upon him, and was thenceforward attached to the eldest son of the king, who is considered a duke by birth. The Duchy of Lancaster was soon after conferred on Edward's third son, John of Gaunt, and hence arose the special privileges which these two duchies still in part retain. A duke in the British peerage, not of royal rank, is styled "your grace," and is "most noble"; his wife is a duchess. At various periods and in different continental countries the title of duke (Terzog in Germany) has been given to the actual sovereigns of small States. The titles grand-duke and grand-duchess, archduke and archduchess, are in use also on the European continent, the latter to distinguish the princes and princesses of the Austrian imperial family.

**Dukhobors,** or **Doukhobors.** See DUCHOBORTZI.

**Dulce,** a lake of Guatemala, on the E. coast, communicating with the Gulf of Honduras by the lakelet el Golfete.

**Dulcimer,** one of the most ancient musical instruments, used by various nations in almost all parts of the world, and, in shape and construction, having probably undergone fewer changes than any other instrument. In its earliest and simplest form, it consisted of a flat piece of wood, on which were fastened two converging strips of wood, across which strings were stretched tuned to the natural scale. The only improvement since made on this type are the addition of a series of pegs, or pins, to regulate the tension of the strings, and the use of two flat pieces of wood formed into a resonance-box, for the body.

**Du Lhut, Daniel Greysolon,** an American pioneer; born in France about 1645; went to Canada about 1670, and became a trader and a leader of bushrangers. He chose the sites of Detroit and Fort William, fought in the Canadian war with the Senecas in 1687, and commanded Fort Frontenac in 1695. The city of Duluth is named after him.

**Duluth,** city, port of entry, and capital of St. Louis county, Minn., at the W. end of Lake Superior, and on several trunk line railroads; 155 miles N. E. of St. Paul. It is an important commercial and manufacturing city, having an excellent harbor, steamer communication with all Great Lake ports, and extensive shipments of lumber and iron ore. Pop. (1920) 98,917; (1925) Est. 110,502.

**Duma,** or **Douma, Imperial,** the national consultative assembly of elected representatives, granted to Russia by Nicholas II., Aug. 19, 1905.

**Dumas, Alexandre,** the Elder, a celebrated French romancist and dramatist; born in Villers Cotterets, Aisne, on July 24, 1803. He was the grandson of a French marquis and a San Domingo negress. The works which bear his name amount to some 1,200 volumes, including about 60 dramas. His best romances are the celebrated "Comte de Monte Cristo"; "Les Trois Mousquetaires"; "Vingt ans Apres"; "La Reine Margot"; "Le Vicomte de Bragelonne"; "La tulipe noire." He died Dec. 5, 1870.

**Dumas, Alexandre,** the Younger, a French dramatist and romancist, son of the preceding; born in Paris, July 27 or 28, 1824. He died in Paris, Nov. 28, 1895.

**Dumas, Jean Baptiste Andre,** a French chemist; born July 14, 1800. His investigations of the atomic theory and his researches in organic chemistry won him fame. He died April 11, 1884.

**Du Maurier, George Louis Palmella Busson,** artist, caricaturist, and novelist; born in Paris, France, March 6, 1834. He studied in Paris and Antwerp and returning to London, he began to draw for "Once a Week," the "Cornhill Magazine," etc. He subsequently joined the "Punch" staff, and became famous through his drawings for that publication. In 1891 appeared his first novel, and in 1894 he issued "Trilby," which had a great popularity. He died Oct. 8, 1896.

**Dumba, Constantin Theodor,** an Austrian diplomat; born in Vienna, June 17, 1856; studied political science in Paris in 1878–9; entered the Austrian Foreign Office in the latter year; was appointed Ambassador to the United States, April 24, 1913; and was recalled on the demand of the United States Government, issued Sept. 9, 1915, because of his pernicious activities against the United States in relation to the war in Europe.

**Dumbness,** inability to speak; incapacity to articulate sounds. In a very large number of cases dumbness arises from no malformation of the organs of speech, but is a necessary sequence of congenital deafness, the latter arising from some morbid affection of the ear. Dumbness without deafness is a rare affliction. Hence the institutions designed for the benefit of this class of sufferers are generally said to be for the "deaf and dumb," or for "deafmutes." Dactylology, or the use of finger alphabets, affords a ready means of enabling these afflicted persons to communicate with each other; besides which they can be taught to take note of the exact movements made by a speaker and imitate them.

**Dum-dum Bullets,** so named from the place near Calcutta where they originated, are made with a soft point so that in striking a bone, the bullet flattens out and shatters the obstruction. Their use was condemned by The Hague Peace Congress.

**Dumfries,** a river port, railway centre and parliamentary borough, capital of the county of same name, and the chief place in the S. of Scotland. It is chiefly known to the world as the residence in later years of Robert Burns. Pop. (1911) 16,011.

**Dummer's War,** so named from William Dummer, acting-governor of Massachusetts; was the fierce but successful conflict from 1723 to 1725 waged against the Abnaki Indians by the border settlers of Vermont and Maine, then under the jurisdiction of Massachusetts.

**Dummler, Ernst Ludwig,** a German historian; born in Berlin, Jan. 2, 1830; studied at Bonn and Berlin. He was a member of the Academy of Munich, and after 1871 was a member of the Historical Commission of Munich. He was elected a corresponding member of the French Academy of Sciences in 1882. He died in 1902.

**Dumont, Julia Louisa,** an American writer; born in Waterford, O., October, 1794. She had the distinction of being one of the earliest women of the West whose writings have been preserved. She contributed largely to periodicals. She died Jan. 2, 1857.

**Dumont, D'Urville, Jules Sebastian Cesar,** a French navigator; born in 1790. After completing his studies at Caen he entered the French navy, in which he ultimately rose to be rear-admiral. In 1826–1829 he commanded the corvette "Astrolabe," which was sent to obtain tidings of La

Perouse, and to make hydrographic observations. He made surveys of the coasts of Australia, New Zealand, etc., and found remains of the shipwreck of La Perouse on one of the Pacific islands. In 1837 he sailed with the "Astrolabe" and "Zelee" on a voyage of Antarctic discovery, and after many dangers, and having visited many parts of Oceania, he returned in 1840. He died in 1842.

**Dumouriez, Charles Francois,** a French general; born in Cambrai, Jan. 25, 1739. He entered the army early in life and at 24 years of age had received 22 wounds, and was made a Knight of St. Louis. He afterward became a minister of Louis XVI., but was later dismissed. Still determined to devote himself to the service of the army, he proceeded to Valenciennes, where he soon gained immortal fame by his valor and his firmness, displayed at the head of the French soldiers, having succeeded Lafayette in the command of the Army of the North. He rendered very important service to his country by the stand he so skillfully made against the Prussian invaders in the forest of Argonne, in September, 1792; the famous "Cannonade of Valmy" taking place on the 20th of the same month. His rapid conquest of Belgium followed. Notwithstanding his success, the Directory, not without motive, entertained suspicions regarding his designs. Dumouriez had entered into secret negotiations with the enemy, and on learning that an accusation of treason was to be brought against him, he with several of his officers, fled to the Austrian headquarters. He refused, nevertheless, to serve against his country; wandering for some time through Europe, and lastly settled in England, where he died near Henley-upon-Thames, March 14, 1823.

**Dun, Edwin,** an American diplomatist; born in Chillicothe, O., in July, 1848. He went to Japan in 1873, becoming successively United States Second Secretary of Legation, First Secretary of Legation, and, from 1893 to 1897, United States Minister. During the war between China and Japan the Chinese government placed its interests in Japan in his care.

**Dunbar,** a town of Scotland; a royal and municipal borough and seaport in Haddingtonshire, at the mouth of the Firth of Forth. It is a place of great antiquity, having originated in a castle once of great strength and importance which underwent several memorable sieges, on one occasion being successfully defended against the English for 19 weeks by Black Agnes, Countess of Dunbar. In 1650 Cromwell totally defeated the Scottish army under David Leslie near the town. The harbor is not very commodious, but the town is an important fishing station.

**Dunbar, Paul Laurence,** an American poet; born of negro parents in Dayton, O., June 27, 1872. He was graduated at the Dayton High School in 1891, devoted himself to literature, and in 1898 became one of the staff of the Congressional Library. He died Feb. 9, 1906.

**Dunbar, William,** a Scotch poet; born in Salton, Lothian, about 1465. He was a Franciscan friar, but was often employed by James IV. in affairs of state. He died about 1530.

**Duncan, Adam, Viscount,** a Scotch naval officer; born in Dundee, July 1, 1731. In 1797 he won a brilliant victory over the Dutch fleet off Camperdown, for which he was ennobled. He died Aug. 4, 1804.

**Duncan, Robert Kennedy,** scientist; b. Bradford, Ont., Canada, Nov. 1, 1868, graduated first class honors Univ. of Toronto, took post-graduate courses in Clark Univ., Worcester, Mass., Columbia Univ., N. Y. C., in 1901 became prof. of chemistry at Washington and Jefferson Coll., Pa., and widely known for synthesizing modern scientific discoveries.

**Duncan, William Wallace,** an American clergyman; born in Boydtown, Va., Dec. 20, 1839. He was graduated at Wofford College (S. C.) in 1858; served as a Confederate chaplain in the Civil War; was prof. of philosophy at Wofford College 1875-1886, and in 1886 became a bishop of the M. E. Church, South. D. in 1908.

**Dunce** (a word introduced by the Thomists, or disciples of Thomas Aquinas, in ridicule of the Scotists, or disciples of John Duns Scotus, schoolman, who died A. D. 1305), originally a subtle sophist given to caviling where he cannot refute. This was the

sense in which the Thomists employed the term. When the reaction against the Schoolmen took place at the Reformation the merits of those acute metaphysicians were temporarily decried, and the celebrated John Duns Scotus coming in for a more than ordinary share of disparagement, he, though a man of very subtle intellect, was held by the more ignorant or prejudiced of the Reforming party to be a man of invincible stupidty. He was therefore made to stand as the prototype of all modern dunces.

**Dunciad, The,** a celebrated satirical poem by Pope, in which he gibbets his critics and foes.

**Duncombe, Thomas Slingsby,** an English politician; born in 1796. He was elected member of Parliament for Hertford in 1824, assisted in carrying the Reform Bill, and became prominent in the extreme Liberal party. In 1834 he was returned for Finsbury, which seat he retained in the Parliament which assembled in 1859. In 1842 he presented the Chartist petition, signed by 3,000,000 of the lower classes, in favor of universal suffrage, vote by ballot, short Parliaments, etc. In 1842 the then home secretary, Sir James Graham, having sanctioned the opening of the letters of Mazzini, Duncombe, in the House of Commons, denounced, with scathing invective, the adoption of the postoffice spy system on English soil. He was an earnest advocate of Jewish emancipation; and his motion, 1858, for placing Baron Lionel Rothschild on a committe of the House of Commons was soon followed by the concession of the right of Jewish members to sit in the House of Commons. He died Nov. 13, 1861.

**Dundee,** a flourishing borough and seaport of Scotland in County Forfar, on the Tay, 8 miles from the sea, and 37½ miles N. E. of Edinburgh. Dundee possesses many shipyards, sugar refineries, tanneries, and machine shops. Its linen trade is the largest in Great Britain; it is the centre of the Kingdom's whale and seal-fishing industry; and its annual trade exceeds $24,000,000. Pop. (1921) 168,217.

**Dundonald, Thomas Cochrane, 10th Earl of.** See COCHRANE, THOMAS.

**Dune,** a low sand-hill, an accumulation of sand on the seashore; a hill-fort, or a regular building commonly called a Danish fort. Sand dunes are made by the blowing of sand, this material having been produced by the grinding down of rocks under the influence of breakers on the seashore or coast, or any similar agency. Such sand dunes in many places skirt the shores, in some places encroaching on and covering what once was cultivated land. They are common features from Cape Cod to Cape Canaveral, along the sandy Atlantic coast of North America. The wandering sand dunes of Illinois, Indiana, and other states are interesting natural phenomena which have received considerable scientific study.

**Dunedin,** capital of the provincial district of Otago, New Zealand, and the most important commercial town in the colony, stands at the upper extremity of an arm of the sea, about 9 miles from its port, Port Chalmers, with which it is connected by railway. Though founded in 1848, its more rapid progress dates only from 1861, when extensive gold-fields discovered in Otago attracted a large influx of population. It is well paved, lighted with gas, and has a good supply of water. There are many handsome buildings, both public and private: municipal buildings, the post-office, hospital lunatic asylum, government offices, the university, high schools (boys' and girls'), the new museum, several banks (especially the Bank of New Zealand), the athenæum and mechanics' institute, the freemasons' hall, two theaters, etc. Wool is the staple export. Several woollen and other manufactories are now in existence. There is regular steamship communication between this port and Melbourne, and with all parts of New Zealand. Pop. of Dunedin proper (1911) 41,529; including suburbs, 64,237; (1921) 73,470.

**Dunfermline,** a town in Fife, Scotland, 16 miles N. W. of Edinburgh. It is a place of antiquity, from 1057 till 1650 was a frequent residence of Scotland's kings, and for more than two centuries their place of sepulture. It was here that Charles II. signed the Covenant in 1650. Andrew Carnegie, the American steel

millionaire, was born in Dunfermline, and he has bestowed many gifts on the place. Pop. (1921) 39,886.

**Dunkers,** or **Dunkards,** a sect of German Baptists, founded by Alexander Mack, about A. D. 1708. Persecution drove them in 1723 to the United States, where at present they have 1,260 churches, 3,554 ministers, and 123,844 communicants.

**Dunkerque** or **Dunquerque,** a fortified seaport town of France, 40 miles from Lille. In 1388 it was burned by the English; after which its possession was repeatedly contested by the French and Spanish. Shelled by German aircraft, April 30, 1915. Pop. 39,400.

**Dunkirk,** a city and port of entry in Chautauqua county, N. Y.; on Lake Erie and several railroads; 40 miles S. W. of Buffalo; has Van Buren Point and other popular lakeside resorts, a commodious harbor, large lake traffic, Erie railroad shops, manufactures of locomotives, radiators, machinery, and lumber, and many elevators. Pop. (1910) 17,221.

**Dunlap, William,** an American dramatist and painter; born in Perth Amboy, N. J., Feb. 19, 1766. He painted George Washington's portrait, still authentically existent, and for five years (1784-1789) worked under West in London. Returning, he wrote several successful plays. He was one of the founders of the National Academy of Design. He died in 1839.

**Dunmore,** a borough in Lackawanna county, Pa.; on the Erie and Lackawanna railroads; 2 miles N. E. of Scranton; has extensive mines of anthracite coal and large silk interests. Pop. (1920) 20,250.

**Dunne, Edward Joseph,** Catholic Bishop of Dallas, Tex., from 1893; was born in Tipperary, Ireland, in 1848, and educated at the Theological Seminary in Baltimore. D. in 1910.

**Dunne, Finley Peter,** journalist and humorist; born in Chicago in 1867; since 1898 gained wide celebrity by the creation of "Mr. Dooley," a publican-philosopher.

**Dunois, Jean,** called the Bastard of Orleans, Count of Dunois and Longueville, one of the most brilliant soldiers that France ever produced; born in Paris, Nov. 23, 1402, the natural son of Louis Duke of Orleans, brother of Charles VI., and brought up in the house of that prince along with his legitimate children. His first important military achievement was the overthrow of the English at Montargis (1427). He next threw himself into Orleans with a small body of men, and bravely defended the place till the arrival of the famous Joan of Arc, whose religious enthusiasm combined with the valor of Dunois restored the drooping spirits of the French and compelled the English to raise the siege. This was the turning point in the fortunes of the French nation. In 1429 Dunois and the Maid of Orleans won the battle of Patay, after which he marched, with a small body of men, through the provinces and took the fortified towns. The capture and death of Joan of Arc arrested for a moment the progress of the French arms. In 1448–1450 he drove the English from Normandy, and in 1455 secured the freedom of France. He died Nov. 24, 1468.

**Dunsmuir, James,** a Canadian official; born July 8, 1851; became a large land-holder in British Columbia, owner of the Esquimalt & Nanaimo railway, and in 1906 Lieutenant-Governor of British Columbia.

**Duns Scotus, Joannes,** a Scotch metaphysician, head of the Schoolmen; born in Scotland, 1265 or 1274. The word dunce probably comes from his name. He died in 1308.

**Dunstan, St.,** an Anglo-Saxon ecclesiastic; born in Glastonbury in 925. He entered the Benedictine order, became an anchorite at Glastonbury, and in 945 was made abbot by King Edmund. After the death of Edmund, Edred, the next king, made him his prime minister and principal director in civil and ecclesiastical affairs. In the reign of Edwy he was banished, but was recalled by Edgar, and made Archbishop of Canterbury. He was again deprived of power on the accession of Ethelred in 978. He died in Canterbury in 988.

**Duodecimal System,** in numeration, a system of numbers the scale of which is 12.

**Dupanloup, Felix Antoine Philibert,** a French prelate and theologian; born in Savoy, Jan. 3, 1802. He died in Lacombe. Isere, Oct. 11, 1879.

**Dupleix, Joseph Francois,** governor of the French Indies; born in Landrecies, France, Jan. 1, 1697. At the age of 18 he was sent to sea on board an East Indiaman, and in 1720 his father had him appointed to a seat in the Council at Pondicherry. Ten years later he became superintendent at Chandernagore in Bengal. The remarkable success of his administration here led to his being appointed, in 1741, governor-general of all the French Indies with the title of Nawab. Dupleix was recalled by Louis XV., who had patched up an agreement with England on the subject of the rival Indian companies, which was embodied in the futile peace of Pondicherry, 1755. Having spent his fortune in upholding French interests in India, he died in poverty and neglect in Paris Nov. 10, 1764.

**Dupont, Eleuthere Irenee,** an American manufacturer; a son of PIERRE SAMUEL DUPONT; born in Paris, France, June 24, 1771; he was placed in the royal mines of Essonne to acquire a practical knowledge of the manufacture of gunpowder. He remained there till the French Revolution broke out, when he was called to take charge of his father's printing and publishing house. He came to the United States in 1799, and soon after his arrival he discovered the bad quality of gunpowder that was made in the United States. He revisited the Essonne mills in January, 1801, to procure plans, models, and machinery, returning in August. Soon afterward he erected his first powder works on the Brandywine river, near Wilmington, Del., which finally proved a success. He erected other works, which are still in operation. He died in Philadelphia, Pa., Oct. 31, 1834.

**Dupont, Henry Algernon,** an American military officer; grandson of ELEUTHERE IRENEE DUPONT; born in Wilmington, Del., July 30, 1838; graduated at the United States Military Academy; served through the Civil War; was brevetted lieutenant-colonel for "distinguished services" at Cedar Creek, in 1864; awarded a Congressional Medal of Honor for the same battle, in 1898; and resigned from the army in 1875. He was engaged in railroad management in 1879–1902; elected United States Senator as a Republican in 1895, during the long dead-lock, but was not seated; re-elected and seated for the terms of 1906–11, 1911–17.

**Dupont, Samuel Francis,** an American naval officer; born in Bergen Point, N. J., Sept. 27, 1803. He was commissioned a midshipman when 12 years old. During the Mexican War he saw much active and gallant service on the California coast. In 1856 he was made a captain, and the following year was placed in command of the steam frigate "Minnesota," which conveyed Mr. Reed, the American minister, to China. In 1862 he was put in command of the South Atlantic blockading squadron. He was promoted to rear-admiral in August, 1862. He greatly contributed to the organization of the Naval School at Annapolis. He died in Philadelphia, Pa., June 23, 1865.

**Dupont, Victor Marie,** an American manufacturer; son of Pierre Samuel Dupont de Nemours (dropping de Nemours); born in Paris, France, Oct. 1, 1767; entered the diplomatic service as attache to the French legation in the United States in 1787. He returned to France; withdrew from the government service and came to the United States in January, 1800, with his father and mother. He removed to Angelica, N. Y., in 1806 and to Wilmington, Del., in 1809, where he joined his brother and established a cloth manufactory. He was for a time a member of the Delaware Legislature, and a director of the Bank of the United States. He died in Philadelphia, Pa., Jan. 30, 1827.

**Dupont, de Nemours, Pierre Samuel,** a French economist; born in Paris Dec. 14, 1739. In 1782 and 1783, with Dr. Hutton, the English agent, he negotiated the basis of the treaty by which the independence of the United States of America was acknowledged. In 1787 and 1788 he was appointed by Louis XVI. secretary to the assembly of the notables. In 1789 he became a member of the 1st National Assembly. He was twice president of the National Assembly. Under Robespierre he was imprisoned, and nothing but the fall of the tyrant preserved him. He was afterward a member of the council of elders. After the Directory was abolished he came

to the United States, in 1798. In 1802 he returned to France. In 1814 Dupont was made secretary of the provisional government which prepared the way for the return of the house of Bourbon to the throne of France. After Napoleon's return from Elba he settled in the United States. He died Aug. 6, 1817.

**Dupre, Jules,** a French landscape painter; born in Nantes, April 5, 1812. He died in L'Isle Adam, Oct. 6, 1889.

**Duquesne,** a borough in Allegheny county, Pa.; on the Pennsylvania railroad; 12 miles S. E. of Pittsburg; contains steel works, open-hearth and blast furnaces, and lumber plants; and has considerable mining and farming interests. Pop. (1920) 19,011.

**Duquesne, Abraham,** a French admiral; born in Dieppe in 1610; distinguished himself during and after the year 1637 in the war against Spain. In 1647 he commanded the expedition against Naples. In the Sicilian war he thrice defeated the combined fleets of Holland and Spain, under De Ruyter; was exempted from the banishment of the Huguenots. He died Feb. 2, 1688.

**Duran, Carolus,** a French painter; born in Lille, July 4, 1837; died Feb. 18, 1917.

**Durand, Edward Dana,** an American statistician; born in Romeo, Mich., Oct. 18, 1871; was Assistant Professor of Administration and Finance at Leland Stanford University in 1898–1899; Secretary United States Industrial Commission in 1900–1902; Instructor in Economics at Harvard in 1902; Special Expert in the Census Bureau in 1902; Special Examiner in the Bureau of Corporations in 1903–1907; Director of the Census Bureau, 1909–13.

**Durango,** a town of Mexico, 6,700 feet above sea level, 500 miles N. W. of the City of Mexico. Pop. 32,263. Area of State of Durango, 38,009 square miles; pop. (1919) Est. 460,000.

**Durant, Henry Fowle,** an American philanthropist; born in Hanover, N. H., Feb. 20, 1822. He graduated from Harvard; devoted himself to philanthropy, and founded Wellesley College. He died Oct. 3, 1881.

**Durazzo,** a port of Albania, on the Adriatic, 50 miles S. of Scutari. It is the ancient Epidamnos, and the Dyrrachium of the Romans; was conquered by the Turks in 1501; and has the most important harbor of Albania. See APPENDIX: *World War.*

**Durban,** a seaport of Natal, South African Union; on a fine bay. The climate is healthy and suitable for Europeans. The town was laid out by the Dutch, who formed a republic in Natal before the British took the colony in 1842. During the war against the Boers the British made Durban a base of supplies. Pop. (1921) 146,324.

**Durbar,** an audience room in India; also a ceremonial audience or conference therein.

**Durer, Albert,** a German painter; born in Nuremberg in 1471. Durer's talent early developed itself, and took a decided turn for painting. His fame spread far and wide. Maximilian I. appointed him his court painter, and Charles V. confirmed him in this office. He was the first in Germany who taught the rules of perspective, and of the proportions of the human body, according to mathematical principles. He died in Nuremberg in 1528.

**Duress,** in law, a condition that may be either physical, that is, by actual confinement or restraint of liberty, or moral, that is, by threats or menaces, in either case the overt act must be to compel a person to do some act.

**Durfee, Job,** an American jurist; born in Tiverton, R. I., Sept. 20, 1790; graduated at Brown University in 1813. He was elected to Congress in 1820, and Chief-Justice of Rhode Island in 1835. He died in Tiverton, R. I., July 26, 1847.

**Durfee, William Franklin,** an American engineer; born in New Bedford, Mass., Nov. 15, 1833. He studied at Lawrence Scientific School, Harvard, and turned his attention to steel manufacture, his plant turning out in 1865 the ingots from which were made the first steel rails in the United States. He died in 1899.

**Durham,** a city in Durham Co., N. C.; 26 miles N. W. of Raleigh. It was the scene of the treaty between Generals Sherman and Johnston at the

close of the Civil War. Pop. (1900) 6,679; (1910) 18,241; (1920) 21,719.

**Durham,** an ancient city and parliamentary borough in England, capital of the county of the same name, on the river Wear, which is crossed here by four bridges, 14 miles S. of Newcastle. The cathedral occupies a height overlooking the Wear. The larger portion of it is Norman in style, with insertions in all the English styles. It was founded by William de Carilepho, assisted by Malcolm, King of Scotland, in 1093. Pop. (1921) 17,389.

**Durham, University of,** an English university located at Durham and which was originated in 1831 under Bishop Van Mildert, by the appropriation of part of the property belonging to the cathedral chapter.

**Duroc, Michel Gerard Christophe,** Duke of Friuli, a French officer under Bonaparte; born in Pont-a-Mousson, Oct. 25, 1772. He served as aide-de-camp to Napoleon in the Italian and Egyptian campaigns. In 1805 he was made grand-marshal of the palace, and was frequently employed in diplomatic missions, though he still took his full share in the wars of France till the time of his death. He was a great favorite of Napoleon, and was killed by his side at the battle of Bautzen, May 22, 1813.

**Durra,** a genus of grasses, which is also called durra millet and Indian millet, or sorgho grass. The genus is closely allied to sugar-cane and beard-grass. Durra yields a very abundant produce, in this respect even rivaling maize, but the meal does not make good bread; it is excellent for puddings, and is prepared for food in various other ways. The sweet pith of the culm is eaten, and is also of value as a source of sugar, for which it is successfully cultivated in the United States. It is also cultivated in Asia, Africa, and the S. of Europe.

**Duruy, Victor,** a French historian and statesman; born in Paris Sept. 11, 1811. He died in Paris Nov. 25, 1894.

**Duse, Eleanora,** an Italian actress; born in Vigevano, Italy, in 1861. She has played in all the principal countries of Europe and visited the United States. She has been twice married and divorced. Died, 1924.

**Dussaud's Telescope,** an instrument invented in 1898 by M. Dussaud, a French scientist, and which sends pictures by wire. The instrument consists of a camera, at the opposite end from the lens is a revolving screen worked by clockwork and pierced with small openings arranged in spiral form. Behind this is a system of selenium layers connected with a battery. By means of this machine an observer at the receiving station sees upon the screen the exact image produced in the camera of the transmitter.

**Dusseldorf,** a town of Prussia, in the Rhenish province, beautifully situated among villas and gardens on the Rhine, 22 miles N. N. W. of Cologne. It is the seat of the Dusseldorf School of Painting. Pop. (1919) 407,338.

**Dutch,** the people and language of Holland or the Netherlands.

**Dutch Auction,** a kind of auction in which articles are put up at a high price and lowered till a bidder is met with.

**Dutch Church,** the church to which the majority of the people of Holland adhere. In the 16th century the ancestors of the present Dutch wavered for a time between the Lutheran and the Reformed Churches. In 1571 they publicly professed their allegiance to the latter by embodying its doctrines in the Belgic Confession of Faith, published in that year. One of the most notable events in the history of the Dutch Church, after the yoke of Spain was broken, was the Synod of Dort, in 1618. James Arminius, Professor of Theology at Leyden, having rejected the Calvinistic tenets and adopted those which were destined to be called after himself, Arminian, a synod was convened at Dort to examine and, if need be, condemn his views. This was done, but with little effect, the views of Arminius prevailing to a greater extent after than they had done before their condemnation. The present Dutch Church remains nominally Reformed.

**Dutch Courage,** false or fictitious courage, usually applied to the bravado inspired by partial intoxication.

**Dutchman, The Flying,** a phantom ship which sailors believed could

often be seen about the Cape of Good Hope. The story is that a Dutch captain, Vanderdecken by name, being tossed about by adverse winds while trying to round the Cape, swore with many oaths that he would accomplish his purpose if he beat to and fro till the judgment day, and as a punishment his ship never touched land.

**Dutch Metal,** sometimes called Dutch gold or Dutch leaf, an alloy of copper and zinc; a kind of brass containing a large percentage of copper.

**Dutch Oven,** a spider, skillet, or camp-oven used by those who cook by hot coals on the hearth.

**Dutch School,** a school of art which cannot be said to possess the perfections that are to be observed in the Flemish school; their subjects are principally derived from the amusements of the peasants.

**Duty,** a tax or impost levied upon imports, and frequently upon exports.

**Duval, Claude,** an English highwayman; born in Domfront, Normandy, in 1643. He went to England at the Restoration, in the train of the Duke of Richmond. Taking soon to the road, he robbed many gentlemen of their purses, and ladies of their hearts, till, having been captured while drunk, he was hanged at Tyburn, Jan. 21, 1670.

**Duyckinck, Evert Augustus,** an American author; born in New York city, Nov. 23, 1816. He died there, Aug. 13, 1878.

**Dvorak, Antonin,** a Bohemian composer; born near Muhlhausen, Sept. 8, 1841. Attention was first called to him by what remains his best work, a "Stabat Mater," the most modern and one of the finest settings of this hymn. He came to the United States in 1892, and became director of the National Academy of Music in New York city, until he returned to Prague in 1895. While in America he wrote a symphony "From the New World," and an overture "In Nature," in which he introduced negro and Indian melodies. He died May 1, 1904.

**Dwarka,** a maritime town of Guzerat, India, on the W. side of the peninsula of Kathiawar, in the Dominion of Baroda, 235 miles S. W. of Ahmedabad. On an eminence overhanging the seashore stands a great temple of Krishna, visited annually by 10,000 pilgrims.

**Dwight, Francis,** an American educator; born in Massachusetts, March 14, 1808; turned his whole attention to the promotion of common school education in our country. He died Dec. 15, 1845.

**Dwight, Harrison Gray Otis,** an American missionary; born in Conway, Mass., Nov. 22, 1803; was graduated at Hamilton College, New York, and became a missionary to the Armenians, making Constantinople the center of his field of operations. He died Jan. 25, 1862.

**Dwight, John Sullivan,** an American musical critic; born in Boston, May 13, 1813. He died Sept. 5, 1893.

**Dwight, Joseph,** an American soldier; born in Hatfield, Mass., Oct. 16, 1703; graduated at Harvard University in 1722. He was eminent both as a judge and a soldier. He was also for 11 years a member of the General Council of Massachusetts. He died in 1765.

**Dwight, Nathaniel,** an American educator; brother of Timothy of Yale College; born in Northampton, Mass., Jan. 31, 1770; prepared and published the first school geography ever issued in the United States. He died June 11, 1831.

**Dwight, Theodore,** an American journalist; brother of Timothy; born Dec. 15, 1764. He was a well-known Federalist, and a member of Congress. He died June 12, 1846.

**Dwight, Theodore,** an American writer; son of Theodore; born March 3, 1796. He died Oct. 16, 1866.

**Dwight, Theodore William,** an American educator, jurist, and editor; born in Catskill, N. Y., July 18, 1822. He died in Clinton, N. Y., June 28, 1892.

**Dwight, Timothy,** an American Congregational clergyman; born in Northampton, Mass., May 14, 1752. He was president of Yale College from 1795 to 1817. He died in New Haven, Conn., Jan. 11, 1817.

**Dwight, Timothy,** an American Congregational clergyman; born in Norwich, Conn., Nov. 16, 1828; grand-

son of Timothy Dwight. He was president of Yale University from 1886 till 1898, when he resigned. He was a member of the New Testament Revision Committee. He died May 26, 1916.

**Dwight, William Buck,** an American geologist; born in Constantinople, Turkey, May 22, 1833. He graduated at Yale in 1854, at Union Theological Seminary in 1856, and at Yale Scientific School in 1859. He turned his attention to geology, became an instructor at West Point, N. Y., State Examiner in Geology, and founded Englewood (N. J.) Female Institute. He died Aug. 29, 1906.

**Dwina,** the name of two important rivers of Russia.

**Dyaks,** or **Dayaks,** the Malay name for the race which constitutes the bulk of the aboriginal population of Borneo. Physically they closely resemble the Malays, to whom they are doubtless akin, but are somewhat taller; they are intelligent, hospitable, and unsuspicious, and greatly excel the Malays in truthfulness and honesty. The coast tribes have adopted many Malay words, and some have completely adopted the Malay speech. Even the most uncivilized tribes have many ingenious arts and industries. Their chief weapon is the blowpipe, not the bow. The barbarous custom of systematic head-hunting is dying out, though the heads of enemies are still cherished trophies of the warrior. The Sea-Dyaks were long famous as untamable pirates.

**Dyeing and Dyestuffs,** the art of imparting colors to textile and other materials. Fifty years ago natural dyestuffs alone were employed by the dyer, but in 1856 the English chemist Perkin, while endeavoring to make artificial quinine, accidentally discovered a simple method of making the rich purple coloring matter mauve, from aniline. Other chemists soon discovered how to derive from aniline quite a number of colors: red, blue, purple, green, etc. The vegetable dyestuffs are gradually being superseded by the newer colors, very many of which are entirely satisfactory as regards fastness to light and other influences. See ANILINE; COAL-TAR.

**Dyer, Nehemiah Mayo,** an American naval officer; born in Provincetown, Mass., in 1839. He enlisted in the navy in 1861 and was promoted for gallantry in the Civil War. He rose steadily through the grades to that of captain in 1897, and took part in the battle of Manila bay the following year; was promoted rear-admiral in 1901 and retired the same year. He died Jan. 27, 1910.

**Dykes, John Bacchus,** an English composer; born in Hull, March 10, 1823; graduated at Cambridge; was ordained in 1847, and was appointed precentor of Durham Cathedral in 1849. He composed a number of hymn tunes, most of which are to be found in all American collections. Among these are "Nearer, My God, to Thee," and "Jesus, Lover of My Soul." He died Jan. 22, 1876.

**Dynameter,** an instrument for measuring the magnifying power of a telescope.

**Dynamics,** the science that deals with the laws of force in their relation to matter at rest or in motion; as such it is differentiated from kinematics, which considers motion mathematically, and apart from the forces producing it. Dynamics is divided into two great branches: statics, which treats of solid bodies at rest under the action of forces; and kinetics, which treats of the action of forces in producing motion in solid bodies. Formerly the latter alone was called dynamics, and to this, in conjunction with statics, the general name mechanics was given. In the wide sense dynamics includes also hydrostatics.

**Dynamic Theory,** an hypothesis broached by Kant that all matter originated from the action of two mutually antagonistic forces — attraction and repulsion. All the predicates of these two forces are attributed by Kant to motion. As applied to heat, it is a theory which represents a heated body as being simply a body the particles of which are in a state of vibration. This vibratory movement increases as the body is still more heated, and diminishes as it cools. It is called also the mechanical theory of heat.

**Dynamite,** an explosive produced by the admixture of nitroglycerin with a siliceous infusorial earth known under the German name as

kieselguhr. Nitroglycerin was discovered in 1846, but is was not till nearly 20 years later that dynamite was discovered.

Dynamite, which has a reddish-brown color, consists of 1 part of kieselguhr to 3 parts of nitroglycerin, and has a specific gravity varying from 1.59 to 1.65. It burns with a yellowish flame, and in small quantities without danger; but explodes with great violence when fired by a detonating fuse. The time of explosion of a dynamite cartridge has been calculated to occupy only the 24,000th part of a second; a fact which explains the violent nature of its action. Under water it loses only 6 per cent. of its power and is consequently greatly in requisition for subaqueous operations. Loose tamping, such as sand or water, is found to be amply sufficient, and in many instances boreholes can be dispensed with altogether, the dynamite being simply laid on the surface of the bodies to be blasted, and covered with sand or clay. For quarrying purposes, dynamite possesses too great shattering power, and gunpowder is more generally employed.

**Dynamite Cruiser,** a cruiser designed especially for utilizing dynamite guns in naval warfare. The "Vesuvius," owned by the United States Government and launched in 1888, was the only vessel built of this type. It took a conspicuous part in the early naval operations against Santiago de Cuba in 1899, but later her peculiar armament was removed and replaced by powder weapons.

**Dynamite Gun,** an invention of Mr. Mefford, in 1883, and since developed by Lieutenant Zalinski, U. S. A., to propel a projectile containing dynamite. No fuse is required, as the shell explodes by concussion when it hits its mark. It is easy to perceive that a single shell of this description striking the side of any ironclad would inevitably sink her.

**Dynamo-electric Machines,** apparatus for generating electric currents by means of the relative movement of conductors and magnets.

**Dynamometer,** an instrument for measuring the force used in overcoming resistance and producing motion.

**Dynograph,** an apparatus used in modern railroading for testing the inequalities of the road-bed, the track, etc. It consists of a recording instrument mounted in a car and geared to the wheels thereof. An automatic pencil records the slightest roughness or inequalities, and locates them.

**Dysentery,** a dangerous intestinal disorder accompanied by fever and frequent griping evacuations, which are chiefly mucous and sometimes mixed with blood, the natural fæces being retained, or voided in small hard masses. Saline purgatives, and for severe cases 20 to 30 drops of laudanum, or Dover's powder, are useful. Tropical endemic dysentery is caused by the presence of a bacillus.

**Dyspepsia,** indigestion or difficulty of digesting, indicating a disordered state of the digestive system, is not a disease of uniform character, but the symptom of a variety of disorders chief of which are: the sub-acute and chronic forms often caused by rich and excessive food and drink; the disorder connected with the irritation of the mucous membrane of the duodenum; and those arising from the nerves connected with the digestive viscera. Good food and cooking, thorough mastication, temperance, and exercise are the best preventatives of dyspepsia.

**Dysphonia** a difficulty in speaking. The disorder known as "clergyman's sore-throat" is a common example. Rest of the vocal organs, tonics, muscular exercise, change of scene, are generally needed to aid recovery.

**Dyspnœa,** a difficulty in breathing. It is sometimes hysterical, sometimes a symptom of disease of the heart or lungs.

**Dziggetai,** a species of wild ass, more horse-like than the others. It is probably the hemionus ("half-ass") of Herodotus and Pliny. It inhabits the elevated steppes of Tartary, extending into the S. of Persia and to the borders of India. The dziggetai lives in small herds, sometimes of several males and several females, sometimes with a single male with about 20 females and foals. It has been partly domesticated, but does not seem to breed in captivity. It is also known by the names of kiang, khur, and goor.

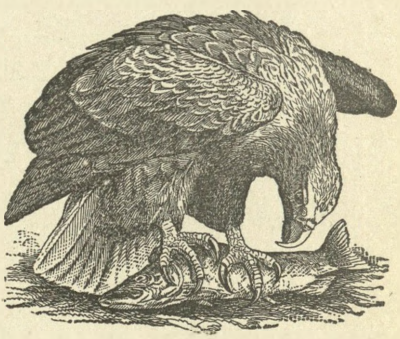
# E

**E,** the second vowel and fifth letter of the Latin alphabet, and of other alphabets, such as the English, German, French, Italian, Spanish, etc., derived from it.

**Eads, James Buchanan,** an American engineer; born in Lawrenceburg, Ind., May 23, 1820. He early designed some useful boats for raising sunken steamers, and in 1861, when called to advise the National government, constructed within 100 days eight ironclad steamers for use on the Mississippi and its tributaries. He afterward built a number of other ironclads and mortar-boats, which were of considerable service to the North. His steel bridge across the Mississippi at St. Louis, with its central arch embracing a clear span of 520 feet, ranks deservedly among the notable bridges of the world; his works for improving the South Pass of the Mississippi delta were successfully completed in 1875–1879; and his great plan for deepening the river as far as the mouth of the Ohio by means of jetties has been demonstrated to be entirely practicable. In 1884 he received the Albert Medal of the Society of Arts, being the first American citizen to whom this honor had been awarded. His plans for a ship-transporting railway across the isthmus of Tehauntepec were made futile by his death, which occurred at Nassau, New Providence, March 8, 1887.

**Eagle,** a name given to many birds of prey in the family Falconidæ. The golden eagle, the white-headed eagle, and the sea eagles are characteristic examples. It is a matter of much difficulty to separate the eagles definitely from the related falcons, buzzards, kites, and hawks. but the genus aquila is marked by its curved bill, long wings and feathered legs.

The white-headed or bald eagle is the emblem of the United States, and therefore honored by every American. The golden eagle is a large and magnificent bird. The predominant color is dark, tawny brown, but the back of the head and neck are more tawny and look golden in the sunlight. They have their homes in remote rocky regions, but often wander far in search of booty. The species is widely distributed in North America, Europe, and Asia, and some of the finest specimens can be seen in the mountainous regions of the United States, where they often show peculiar daring in the pursuit of prey.



SEA EAGLE.

The crested eagles found in South and Central America, are in some species distinguished by tufts of feathers on the back of the head. The harrier eagle is an Old-World genus represented in Europe, North Africa, and Western Asia. The white-tailed or sea

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